

Product Environmental Profile

USB charger, ELKO One, USB A+C type, 21W Power Delivery, recycled PC, matt, pure white

Representative of all ELKO New Scout USB charger





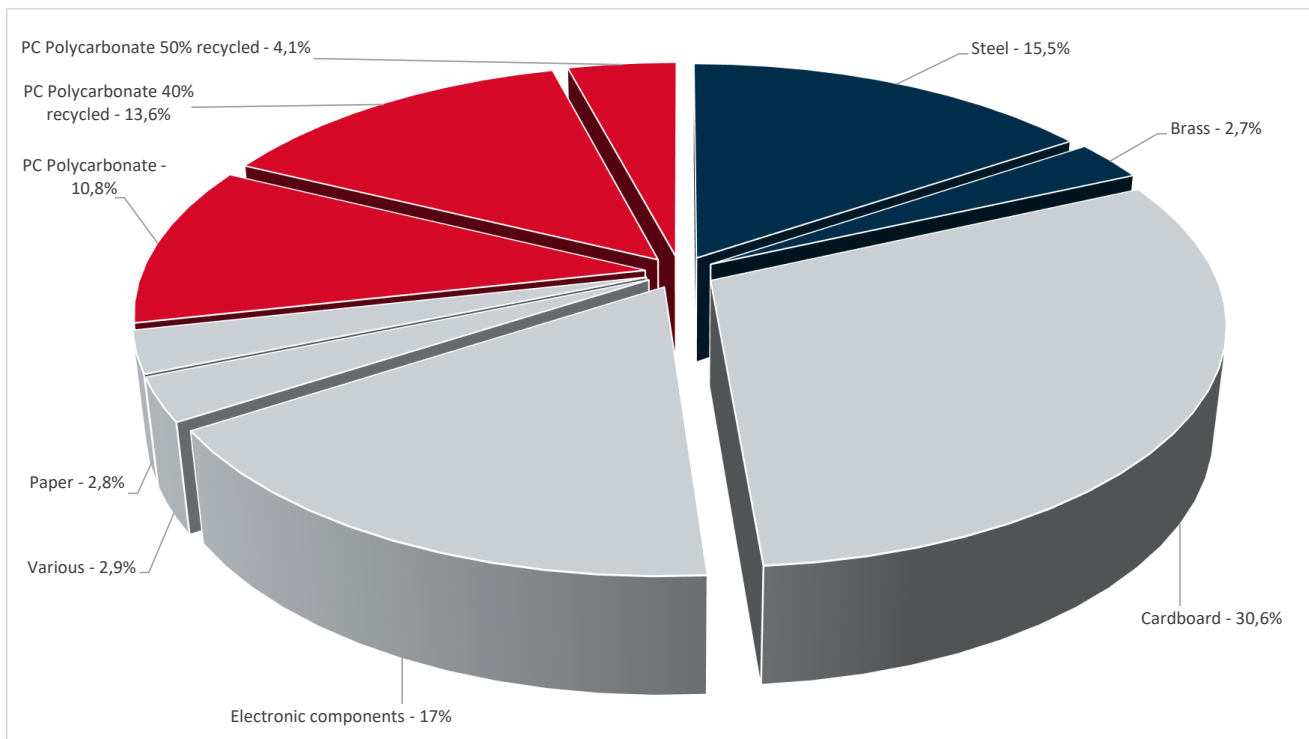
General information

Reference product	USB charger, ELKO One, USB A+C type, 21W Power Delivery, recycled PC, matt, pure white - EKO50089 + EKO50000
Description of the product	The ELKO One offers a USB-A and USB-C PD PPS charger, it is dedicated for any indoor environment and in-wall power supply. This charger is equipped with advanced charging technology USB-C Power Delivery Programmable Power Supply (PD PPS), enhancing the battery charging performance. It smartly negotiates the fastest power rate that the device can handle, and supports all the latest battery charging technologies. It is also backwards compatible. A front aesthetic frame is provided with the product.
Description of the range	The products of the range are: All other New Scout USB charger 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	To make available during 10 years USB charging ports where output voltage and related current will be automatically adapted by PD protocol from 5V/3A to 20V/1.05A for USB C and 5V/3A to 12V/1.5A for USB A. The rated operational voltage is 220-240V, embedding electrical overload and temperature protection. It includes OVC III, overheat, short circuit, inrush current and overcurrent protection. A protection class IP20 in accordance with the standards IEC 60529, according to the appropriate use scenario (Load rate: 50 % of In, Use time rate: 30 % of RL)
Specifications are:	Ue = 200 ... 240 V at 50-60Hz Height = 71 mm Width = 71 mm Depth = 40 mm IP20 conforming to IEC 60529 Low voltage Max power output = 21 W



Constituent materials

Reference product mass	150,9 g	including the product, its packaging and additional elements and accessories
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Others	53,3%
Plastics	28,5%
Metals	18,2%

Substance assessment

Details of ROHS and REACH substances information are available on the ELKO website

<https://www.elko.no/om-elko/miljo/>

Additional environmental information

End Of Life	Recyclability potential:	28%	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.
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Environmental impacts

Reference service life time	10 years		
Product category	USB charging socket		
Installation elements	The references EKO50089 and EKO50000 do not require any specific installation operations		
Use scenario	Use rate = 30% RLT in charging mode, 70% RLT in Standby mode The loss calculation in active mode is based on the charger efficiency measured at 50% of its max power		
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 representative of the actual type of technologies used to make the product.		
Geographical representativeness	Europe		
Energy model used	[A1 - A3]	[A5]	[B6]
	Germany, DE	Electricity Mix; Low voltage; 2018; Norway, NO Electricity Mix; Low voltage; 2018; Sweden, SE Electricity Mix; Low voltage; 2018; Finland, FI	Electricity Mix; Low voltage; 2018; Norway, NO Electricity Mix; Low voltage; 2018; Sweden, SE Electricity Mix; Low voltage; 2018; Finland, FI
			[C1 - C4]
			Electricity Mix; Low voltage; 2018; Norway, NO Electricity Mix; Low voltage; 2018; Sweden, SE Electricity Mix; Low voltage; 2018; Finland, FI

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 - <https://www.elko.no/kontakt-oss/>

Mandatory Indicators		USB charger, ELKO One, USB A+C type, 21W Power Delivery, recycled PC, matt, pure white - EKO50089 + EKO50000						
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	3,35E+00	1,52E+00	2,94E-02	5,23E-02	1,47E+00	2,70E-01	-1,21E-01
Contribution to climate change-fossil	kg CO2 eq	3,32E+00	1,50E+00	2,94E-02	4,98E-02	1,47E+00	2,70E-01	-1,17E-01
Contribution to climate change-biogenic	kg CO2 eq	2,61E-02	2,04E-02	0*	2,48E-03	3,25E-03	0*	-4,61E-03
Contribution to climate change-land use and land use change	kg CO2 eq	4,37E-05	4,37E-05	0*	0*	0*	0*	1,48E-05
Contribution to ozone depletion	kg CFC-11 eq	2,02E-07	1,91E-07	4,50E-11	6,76E-10	1,02E-08	1,73E-10	-1,93E-08
Contribution to acidification	mol H+ eq	2,07E-02	1,02E-02	1,86E-04	1,53E-04	9,83E-03	4,04E-04	-8,05E-04
Contribution to eutrophication, freshwater	kg (PO4) ³⁻ eq	3,24E-05	8,79E-06	1,10E-08	1,20E-06	2,17E-05	6,58E-07	-7,32E-07
Contribution to eutrophication marine	kg N eq	2,64E-03	1,41E-03	8,72E-05	6,65E-05	9,54E-04	1,18E-04	-1,22E-04
Contribution to eutrophication, terrestrial	mol N eq	4,83E-02	1,49E-02	9,57E-04	4,62E-04	3,07E-02	1,27E-03	-1,16E-03
Contribution to photochemical ozone formation - human health	kg COVNM eq	7,91E-03	4,74E-03	2,41E-04	1,06E-04	2,46E-03	3,69E-04	-3,52E-04
Contribution to resource use, minerals and metals	kg Sb eq	1,33E-04	1,33E-04	0*	0*	7,57E-07	0*	-2,99E-05
Contribution to resource use, fossils	MJ	1,24E+02	2,35E+01	4,10E-01	5,17E-01	9,39E+01	5,78E+00	-1,85E+00
Contribution to water use	m3 eq	5,68E-01	4,50E-01	1,12E-04	4,03E-03	7,53E-02	3,86E-02	-5,61E-02

Inventory flows Indicators		USB charger, ELKO One, USB A+C type, 21W Power Delivery, recycled PC, matt, pure white - EKO50089 + EKO50000						
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	1,47E+02	2,10E-01	0*	6,79E-02	1,47E+02	0*	2,07E-01
Contribution to use of renewable primary energy resources used as raw material	MJ	1,00E+00	1,00E+00	0*	0*	0*	0*	-7,22E-01
Contribution to total use of renewable primary energy resources	MJ	1,48E+02	1,21E+00	0*	6,79E-02	1,47E+02	0*	-5,15E-01
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1,23E+02	2,22E+01	4,10E-01	5,17E-01	9,39E+01	5,78E+00	-2,19E+00
Contribution to use of non renewable primary energy resources used as raw material	MJ	1,36E+00	1,36E+00	0*	0*	0*	0*	3,40E-01
Contribution to total use of non-renewable primary energy resources	MJ	1,24E+02	2,35E+01	4,10E-01	5,17E-01	9,39E+01	5,78E+00	-1,85E+00
Contribution to use of secondary material	kg	1,26E-02	1,26E-02	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
Contribution to net use of freshwater	m³	1,37E-02	1,10E-02	2,60E-06	9,39E-05	1,75E-03	8,98E-04	-1,13E-03
Contribution to hazardous waste disposed	kg	3,54E+00	3,49E+00	0*	1,30E-03	2,39E-02	2,50E-02	-2,34E+00
Contribution to non hazardous waste disposed	kg	2,40E+00	1,94E+00	1,03E-03	2,23E-02	3,86E-01	4,59E-02	-7,68E-02
Contribution to radioactive waste disposed	kg	4,53E-04	4,17E-04	7,34E-07	2,76E-06	3,07E-05	1,99E-06	-3,23E-05
Contribution to components for reuse	kg	0,00E+00	0*	0*	0*	0*	0*	0,00E+00
Contribution to materials for recycling	kg	3,32E-02	7,15E-03	0*	0*	0*	2,61E-02	0,00E+00
Contribution to materials for energy recovery	kg	0,00E+00	0*	0*	0*	0*	0*	0,00E+00
Contribution to exported energy	MJ	2,54E-03	1,48E-04	0*	2,13E-03	0*	2,58E-04	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 de C	0,00E+00
Contribution to biogenic carbon content of the associated packaging	kg de C	1,41E-02

Mandatory Indicators		USB charger, ELKO One, USB A+C type, 21W Power Delivery, recycled PC, matt, pure white - EKO50089 + EKO50000							
Impact indicators	Unit	[B1 - B7] - Use	[B1]	[B2]	[B3]	[B4]	[B5]	[B6]	[B7]
Contribution to climate change	kg CO2 eq	1,47E+00	0*	0*	0*	0*	0*	1,47E+00	0*
Contribution to climate change-fossil	kg CO2 eq	1,47E+00	0*	0*	0*	0*	0*	1,47E+00	0*
Contribution to climate change-biogenic	kg CO2 eq	3,25E-03	0*	0*	0*	0*	0*	3,25E-03	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	1,02E-08	0*	0*	0*	0*	0*	1,02E-08	0*
Contribution to acidification	mol H+ eq	9,83E-03	0*	0*	0*	0*	0*	9,83E-03	0*
Contribution to eutrophication, freshwater	kg (PO4) ³⁻ eq	2,17E-05	0*	0*	0*	0*	0*	2,17E-05	0*
Contribution to eutrophication marine	kg N eq	9,54E-04	0*	0*	0*	0*	0*	9,54E-04	0*
Contribution to eutrophication, terrestrial	mol N eq	3,07E-02	0*	0*	0*	0*	0*	3,07E-02	0*
Contribution to photochemical ozone formation - human health	kg COVNM eq	2,46E-03	0*	0*	0*	0*	0*	2,46E-03	0*
Contribution to resource use, minerals and metals	kg Sb eq	7,57E-07	0*	0*	0*	0*	0*	7,57E-07	0*
Contribution to resource use, fossils	MJ	9,39E+01	0*	0*	0*	0*	0*	9,39E+01	0*
Contribution to water use	m3 eq	7,53E-02	0*	0*	0*	0*	0*	7,53E-02	0*


Inventory flows Indicators		USB charger, ELKO One, USB A+C type, 21W Power Delivery, recycled PC, matt, pure white - EKO50089 + EKO50000							
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	1,47E+02	0*	0*	0*	0*	0*	1,47E+02	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	1,47E+02	0*	0*	0*	0*	0*	1,47E+02	0*
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	9,39E+01	0*	0*	0*	0*	0*	9,39E+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	9,39E+01	0*	0*	0*	0*	0*	9,39E+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	m³	1,75E-03	0*	0*	0*	0*	0*	1,75E-03	0*
Contribution to hazardous waste disposed	kg	2,39E-02	0*	0*	0*	0*	0*	2,39E-02	0*
Contribution to non hazardous waste disposed	kg	3,86E-01	0*	0*	0*	0*	0*	3,86E-01	0*
Contribution to radioactive waste disposed	kg	3,07E-05	0*	0*	0*	0*	0*	3,07E-05	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*
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 :	ELKO-01200-V01.01-EN	Drafting rules	PCR-4-ed4-EN-2021 09 06
		Supplemented by	PSR-0005-ed3.1-EN-2023 12 08
Verifier accreditation N°	VH48	Information and reference documents	www.pep-ecopassport.org
Date of issue	08-2024	Validity period	5 years
Independent verification of the declaration and data, in compliance with ISO 14025 : 2006			
Internal External X			
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 14025:2006 "Environmental labels and declarations. Type III environmental declarations"			
			

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