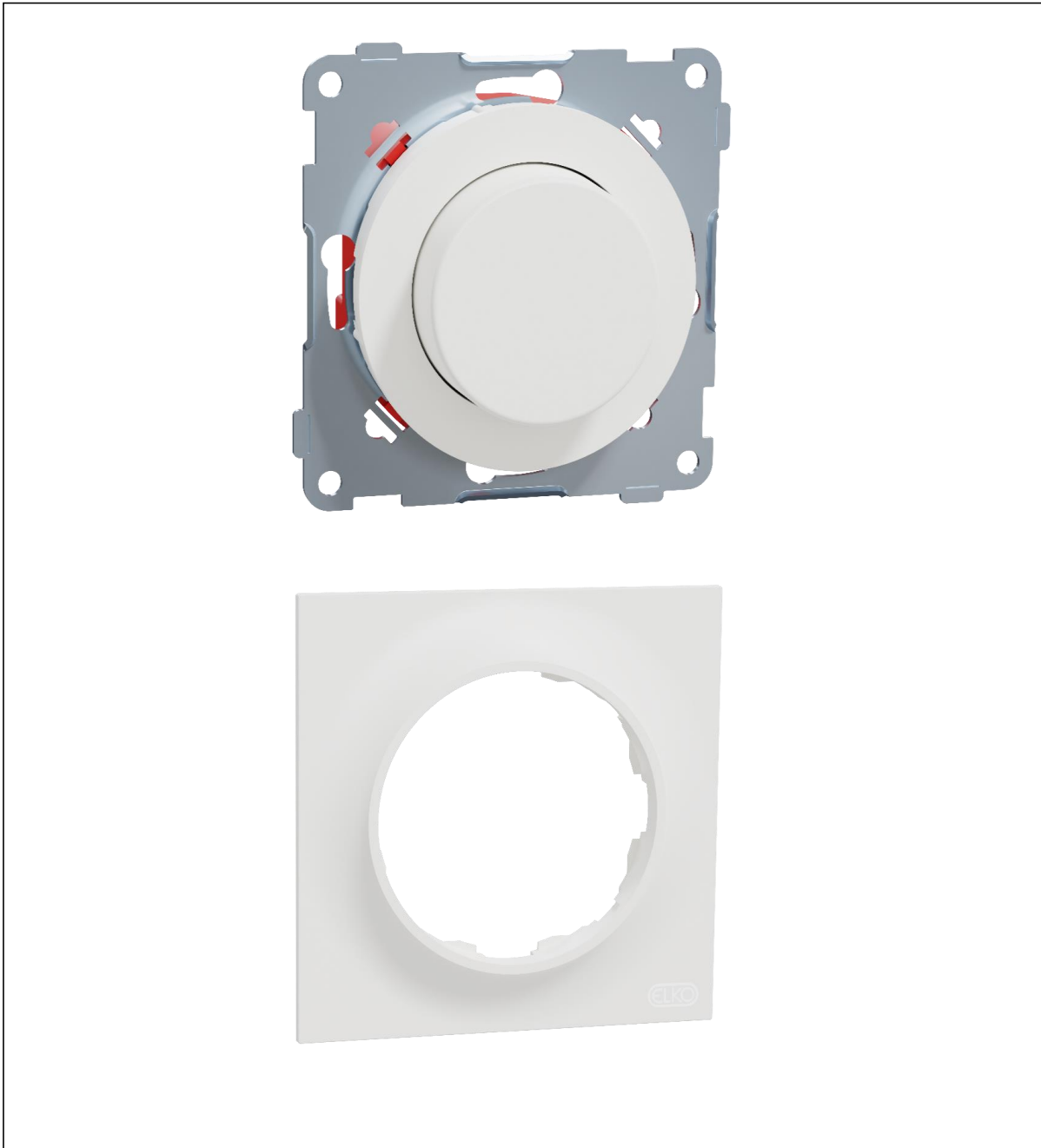


# Product Environmental Profile

**Dimmer, ELKO One, multiwire, LED, 370W, recycled PC, matt, pure white**

**Representative of all ELKO dimmers, fan speed regulators (with or without frames), and the range accessories.**

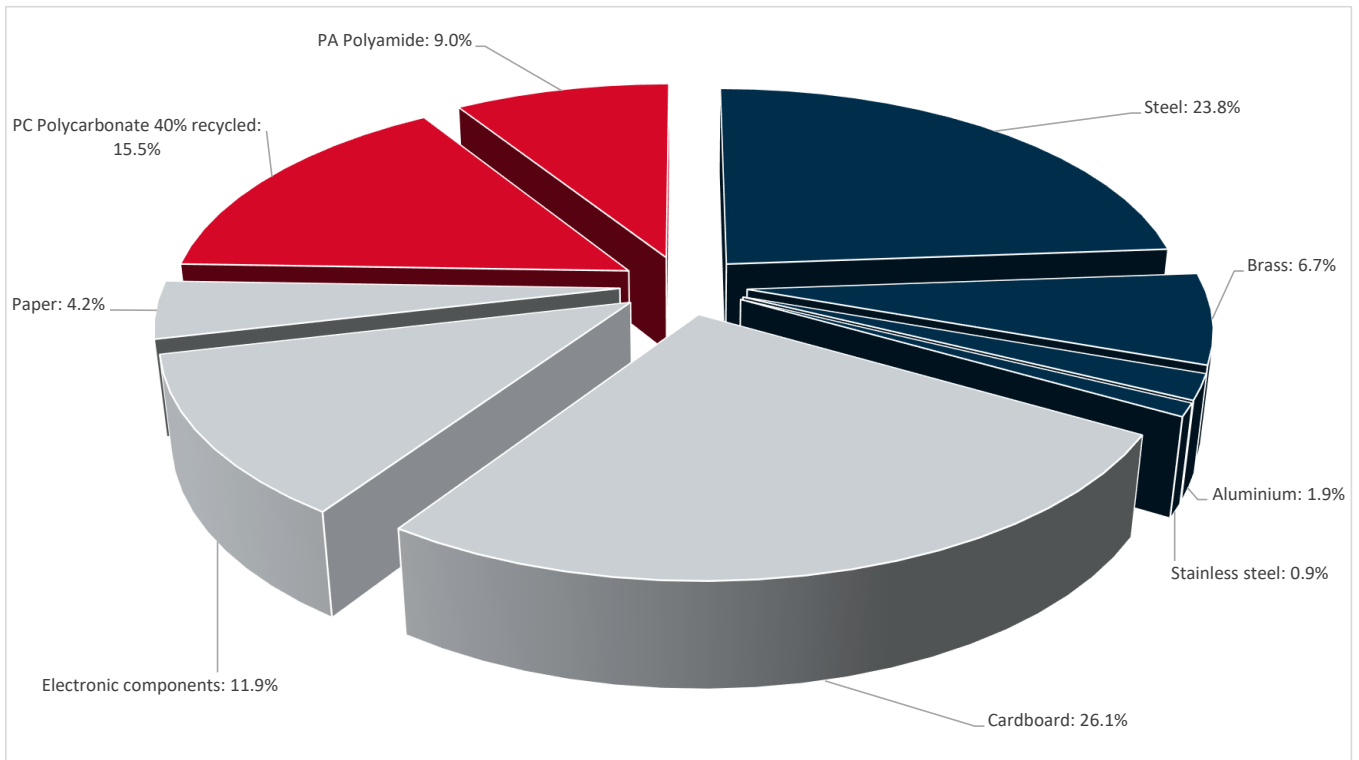


## General information

Reference product	Dimmer, ELKO One, multiwire, LED, 370W, recycled PC, matt, pure white - EKO50095+EKO50000
Description of the product	The main function of this product is to control and dim the various types of lamps.
Description of the range	The products of the range are: Representative of all ELKO dimmers, fan speed regulators (with or without frames), and the range accessories. 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 switch ON & OFF and to adjust the brightness of the light by reducing or increasing the RMS voltage operating at the rated voltage U and rated current I, for the reference service life of the product of 10 years.
Specifications are:	Products specifications in accordance with product standard IEC 60669-2-1: I: 10 A Ue: 230 V Use rate: 30% / Load rate: 10% / Dimming level: 50% Electricity type and frequency: AC 50-60 Hz Degrees of protection IP and IK: IP21; IK02 according IEC 60529 RLT (reference life time): 10 years

## Constituent materials

Reference product mass	163 g	including the product, its packaging and additional elements and accessories
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Others	42.2%
Metals	33.3%
Plastics	24.5%

## 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:	47%	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	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 0.85 W and in OFF mode 70% of the time with a power use of 0.0 W for RLТ (reference life time) 10 years.			
Time representativeness	The collected data are representative of the year 2023			
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]	[C1 - C4]
	Latvia, LV	Norway, NO Sweden, SE Finland, FI	Norway, NO Sweden, SE Finland, FI	Norway, NO Sweden, SE 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		Dimmer, ELKO One, multiwire, LED, 370W, recycled PC, matt, pure white - EKO50095+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	3.13E+00	1.85E+00	4.20E-02	5.45E-02	8.58E-01	3.31E-01	-3.14E-01	
Contribution to climate change-fossil	kg CO2 eq	3.10E+00	1.82E+00	4.20E-02	5.19E-02	8.56E-01	3.31E-01	-3.06E-01	
Contribution to climate change-biogenic	kg CO2 eq	3.56E-02	3.08E-02	0*	2.58E-03	2.28E-03	0*	-8.13E-03	
Contribution to climate change-land use and land use change	kg CO2 eq	2.51E-05	2.51E-05	0*	0*	0*	0*	0.00E+00	
Contribution to ozone depletion	kg CFC-11 eq	2.08E-07	2.00E-07	6.42E-11	7.05E-10	7.12E-09	2.65E-10	-4.73E-08	
Contribution to acidification	mol H+ eq	2.13E-02	1.38E-02	2.80E-04	1.59E-04	6.33E-03	6.73E-04	-1.78E-03	
Contribution to eutrophication, freshwater	kg (PO4) <sup>3-</sup> eq	4.64E-05	2.71E-05	1.57E-08	1.25E-06	1.74E-05	6.18E-07	-1.38E-06	
Contribution to eutrophication marine	kg N eq	2.49E-03	1.52E-03	1.32E-04	6.93E-05	5.97E-04	1.72E-04	-2.28E-04	
Contribution to eutrophication, terrestrial	mol N eq	4.05E-02	1.58E-02	1.45E-03	4.82E-04	2.08E-02	1.87E-03	-2.34E-03	
Contribution to photochemical ozone formation - human health	kg COVNM eq	7.92E-03	5.39E-03	3.67E-04	1.11E-04	1.48E-03	5.76E-04	-7.62E-04	
Contribution to resource use, minerals and metals	kg Sb eq	1.09E-03	1.09E-03	0*	0*	5.12E-07	0*	-5.76E-05	
Contribution to resource use, fossils	MJ	1.23E+02	3.82E+01	5.84E-01	5.39E-01	7.22E+01	1.12E+01	-5.58E+00	
Contribution to water use	m3 eq	2.38E+00	2.26E+00	0*	4.20E-03	4.82E-02	6.61E-02	-1.10E-01	

Inventory flows Indicators		Dimmer, ELKO One, multiwire, LED, 370W, recycled PC, matt, pure white - EKO50095+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	9.19E+01	6.70E-01	0*	7.08E-02	9.12E+01	0*	1.12E-01	
Contribution to use of renewable primary energy resources used as raw material	MJ	1.04E+00	1.04E+00	0*	0*	0*	0*	-7.53E-01	
Contribution to total use of renewable primary energy resources	MJ	9.30E+01	1.71E+00	0*	7.08E-02	9.12E+01	0*	-6.40E-01	
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1.22E+02	3.70E+01	5.84E-01	5.39E-01	7.22E+01	1.12E+01	-5.58E+00	
Contribution to use of non renewable primary energy resources used as raw material	MJ	1.16E+00	1.16E+00	0*	0*	0*	0*	0.00E+00	
Contribution to total use of non-renewable primary energy resources	MJ	1.23E+02	3.82E+01	5.84E-01	5.39E-01	7.22E+01	1.12E+01	-5.58E+00	
Contribution to use of secondary material	kg	1.20E-02	1.20E-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	5.56E-02	5.29E-02	0*	9.79E-05	1.12E-03	1.54E-03	-2.56E-03	
Contribution to hazardous waste disposed	kg	2.00E+01	1.99E+01	0*	0*	1.48E-02	2.01E-02	-4.50E+00	
Contribution to non hazardous waste disposed	kg	9.56E-01	6.54E-01	1.47E-03	2.33E-02	2.31E-01	4.63E-02	-2.51E-01	
Contribution to radioactive waste disposed	kg	4.04E-04	3.79E-04	1.05E-06	2.88E-06	1.89E-05	2.16E-06	-1.39E-04	
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00	
Contribution to materials for recycling	kg	6.31E-02	8.24E-03	0*	0*	0*	5.49E-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	3.10E-03	3.30E-04	0*	2.22E-03	0*	5.43E-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	1.50E-02

Mandatory Indicators		Dimmer, ELKO One, multiwire, LED, 370W, recycled PC, matt, pure white - EKO50095+EKO50000							
Impact indicators	Unit	[B1 - B7] - Use	[B1]	[B2]	[B3]	[B4]	[B5]	[B6]	[B7]
Contribution to climate change	kg CO2 eq	8.58E-01	0*	0*	0*	0*	0*	8.58E-01	0*
Contribution to climate change-fossil	kg CO2 eq	8.56E-01	0*	0*	0*	0*	0*	8.56E-01	0*
Contribution to climate change-biogenic	kg CO2 eq	2.28E-03	0*	0*	0*	0*	0*	2.28E-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	7.12E-09	0*	0*	0*	0*	0*	7.12E-09	0*
Contribution to acidification	mol H+ eq	6.33E-03	0*	0*	0*	0*	0*	6.33E-03	0*
Contribution to eutrophication, freshwater	kg (PO4) <sup>3-</sup> eq	1.74E-05	0*	0*	0*	0*	0*	1.74E-05	0*
Contribution to eutrophication marine	kg N eq	5.97E-04	0*	0*	0*	0*	0*	5.97E-04	0*
Contribution to eutrophication, terrestrial	mol N eq	2.08E-02	0*	0*	0*	0*	0*	2.08E-02	0*
Contribution to photochemical ozone formation - human health	kg COVNM eq	1.48E-03	0*	0*	0*	0*	0*	1.48E-03	0*
Contribution to resource use, minerals and metals	kg Sb eq	5.12E-07	0*	0*	0*	0*	0*	5.12E-07	0*
Contribution to resource use, fossils	MJ	7.22E+01	0*	0*	0*	0*	0*	7.22E+01	0*
Contribution to water use	m3 eq	4.82E-02	0*	0*	0*	0*	0*	4.82E-02	0*

Inventory flows Indicators		Dimmer, ELKO One, multiwire, LED, 370W, recycled PC, matt, pure white - EKO50095+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	9.12E+01	0*	0*	0*	0*	0*	9.12E+01	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	9.12E+01	0*	0*	0*	0*	0*	9.12E+01	0*
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	7.22E+01	0*	0*	0*	0*	0*	7.22E+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	7.22E+01	0*	0*	0*	0*	0*	7.22E+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	1.12E-03	0*	0*	0*	0*	0*	1.12E-03	0*
Contribution to hazardous waste disposed	kg	1.48E-02	0*	0*	0*	0*	0*	1.48E-02	0*
Contribution to non hazardous waste disposed	kg	2.31E-01	0*	0*	0*	0*	0*	2.31E-01	0*
Contribution to radioactive waste disposed	kg	1.89E-05	0*	0*	0*	0*	0*	1.89E-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 v6.2, 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.

