

DCL lighting outlet

# PEP ecopassport®

## Product Environmental Profile



Registration number:	ABBG-01014-V01.01-EN	Drafting rules:	PCR-ed4-EN-2021 09 06
Contact information:	Ella Helynranta - ella.helynranta@fi.abb.com	Supplemented by:	PSR-0005-ed3.1-EN-2023 12 08
Verifier accreditation number:	VH08	Information and reference documents:	www.pep-ecopassport.org
Date of issue:	March-2026	Validity period:	5 years
<b>Independent verification of the declaration and data in compliance with ISO 14025: 2006</b>			
Internal:	<input type="checkbox"/>	External:	<input checked="" type="checkbox"/>
The PCR review was conducted by a panel of experts chaired by Julie Orgelet (Ddemail)			
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"			





# ABB Purpose & Embedding Sustainability

ABB is committed to continually promoting and embedding sustainability across its operations and value chain, aspiring to become a role model for others to follow. With its ABB Purpose, ABB is focusing on reducing harmful emissions, preserving natural resources and championing ethical and humane behavior.

The content of this PEP cannot be compared with the content based on another program/database.

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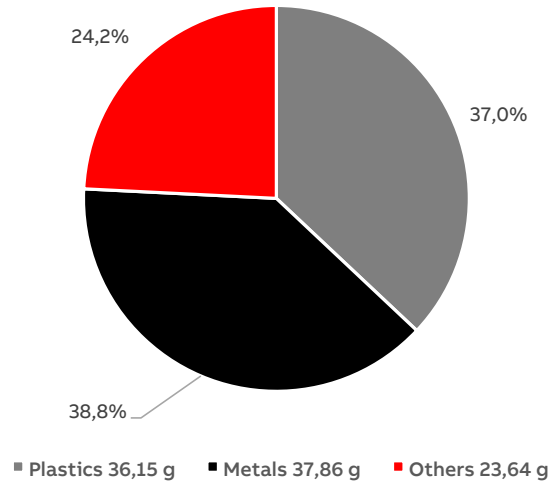


## General information

Reference product	2TKA00000931
Description of the product	AKK14.1 DCL lighting outlet, ceiling outlet, flush mounting
Functional unit	Provide a secure lighting outlet (DCL) capable of delivering up to 6 A at 250 V for lighting appliances, ensuring IP20 protection, mechanical continuity of group cables, and maintenance of electrical safety, across a reference service life of 20 years in indoor residential or commercial installations.
Other products covered	The other products covered by this PEP are listed on page 8.
Manufacturing address	Porvoon Sisäkehä 2, Porvoo Finland <a href="http://www.new.abb.com">www.new.abb.com</a>



## Constituent Materials



Total weight of reference product and packaging

97,7

g

Plastics as % of weight		Metals as % of weight		Others as % of weight	
Name and CAS number	Weight%	Name and CAS number	Weight%	Name and CAS number	Weight%
Polyamide 66	20,2	Carbon steel	30,4	Carton	24,2
Polypropylene	1,2	Steel	7,6		
PBT/PC mix	15,6	Brass alloys	0,8		

The Brass alloys include a mix of different alloys: CuZn7, CuZn15 and CuZn35Pb1. The analysed product is in conformity with the provisions of Low Voltage Directive 2014/35/EU, RoHS directive 2011/65/EU, covering 2015/863(EU), REACH regulation No 1907/2006, and national legislation.



## Additional Information

<b>Manufacturing</b>	Includes the environmental impacts associated with extraction and processing of the raw materials used to produce the product and its packaging, transport to the manufacturing site and assembly, covering modules A1-A3. The product is manufactured at an ISO 14000 certified plant.
<b>Distribution</b>	Includes the transportation of the packaged product from the manufacturer's last logistic platform to the distributor, covering module A4
<b>Installation</b>	Includes manual installation of the product with two screws and the end-of-life of the packaging. The manufacturing and transport of the screws are also included. The life cycle stage corresponds to module A5.
<b>Use</b>	The product does not require special maintenance operations, covering modules B1-B7.
<b>End of life</b>	Includes the transportation of the product to the final end-of-life treatment site and treatment processes, covering modules C1-C4.
<b>Benefits and loads beyond the system boundaries</b>	Prevented impacts of recycling materials, covering module D.

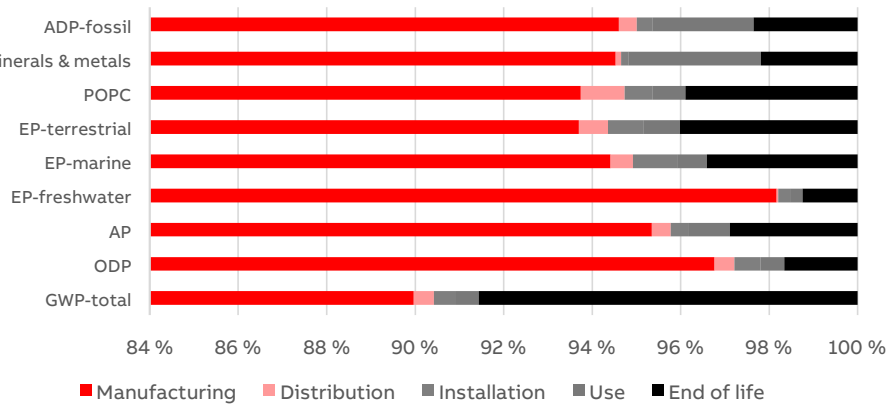


# Environmental Impacts

<b>Reference lifetime</b>	20 years
<b>Product category</b>	Socket outlet
<b>Installation elements</b>	No additional materials needed
<b>Use scenario</b>	Load rate 10% In Use rate 30% RTL
<b>Geographical representativeness</b>	Czech
<b>Technological representativeness</b>	The manufacturing processes considered are representative of the products production
<b>Software and database used</b>	Software: SimaPro version 9.6.0.1 Database: ecoinvent 3.10 and Industry data 2.0
<b>Energy model used</b>	
<b>Manufacturing</b>	Czech
<b>Installation</b>	Finland and Sweden
<b>Use</b>	Finland and Sweden
<b>End of life</b>	Finland and Sweden

## Common base of mandatory indicators

% Environmental Impact per Life Cycle Stage of Reference Product



### Environmental impact indicators

Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life	Benefits
GWP	Total	kg CO2 eq. 9,71E-01	8,73E-01	4,43E-03	4,84E-03	4,97E-03	8,31E-02	-1,34E-01
	Fossil	kg CO2 eq. 9,71E-01	8,75E-01	4,43E-03	4,23E-03	4,61E-03	8,28E-02	-1,35E-01
	Biogenic	kg CO2 eq. -1,56E-03	-2,53E-03	2,16E-06	5,76E-04	9,74E-05	2,92E-04	1,30E-03
	Luluc	kg CO2 eq. 1,43E-03	1,07E-03	1,61E-06	3,75E-05	2,59E-04	6,60E-05	-2,10E-04
ODP	kg CFC-11 eq.	2,00E-08	1,93E-08	9,07E-11	1,17E-10	1,08E-10	3,30E-10	-4,36E-09
AP	H+ eq.	3,99E-03	3,80E-03	1,71E-05	1,65E-05	3,68E-05	1,15E-04	-4,87E-04
EP	Freshwater	kg P eq. 9,42E-04	9,24E-04	3,02E-07	2,52E-06	2,69E-06	1,17E-05	-4,29E-05
	Marine	kg N eq. 8,69E-04	8,21E-04	4,40E-06	8,72E-06	5,82E-06	2,96E-05	-1,19E-04
	Terrestrial	mol N eq. 7,28E-03	6,82E-03	4,81E-05	5,77E-05	6,07E-05	2,92E-04	-1,20E-03
POCP	kg NMVOC eq.	2,29E-03	2,14E-03	2,26E-05	1,45E-05	1,70E-05	8,89E-05	-3,98E-04
ADP	Minerals & metals	kg SB eq. 9,81E-06	9,27E-06	1,19E-08	1,71E-08	2,93E-07	2,14E-07	-8,56E-07
	Fossil	MJ 1,61E+01	1,52E+01	6,58E-02	5,78E-02	3,67E-01	3,79E-01	-2,14E+00
WDP	m³ eq. depr.	1,26E-01	1,05E-01	3,06E-04	2,31E-03	5,05E-03	1,37E-02	-1,34E-02

### Resource use indicators

Indicator	Unit	Total	Manu- facturing	Distribution	Installation	Use	End of life	Benefits
PERE	MJ	1,12E+00	8,25E-01	9,87E-04	9,72E-03	2,08E-01	7,85E-02	-2,33E-01
PERM	MJ	3,04E-01	3,04E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	1,43E+00	1,13E+00	9,87E-04	9,72E-03	2,08E-01	7,85E-02	-2,33E-01
PENRE	MJ	1,48E+01	1,39E+01	6,58E-02	5,79E-02	3,67E-01	3,79E-01	-2,14E+00
PENRM	MJ	1,36E+00	1,36E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	1,61E+01	1,52E+01	6,58E-02	5,79E-02	3,67E-01	3,79E-01	-2,14E+00

## Common base of mandatory indicators

### Use of secondary materials, water, and energy resources

Indicator	Unit	Total	Manufacturing	Distribution	Installation	Use	End of life	Benefits
SM	kg	1,43E-02	1,43E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m <sup>3</sup>	4,50E-03	3,84E-03	1,02E-05	8,42E-05	2,49E-04	3,15E-04	-3,75E-04

### Waste category indicators

Indicator	Unit	Total	Manufacturing	Distribution	Installation	Use	End of life	Benefits
HWD	kg	1,39E-02	1,39E-02	4,28E-07	2,64E-07	2,59E-07	9,91E-07	-3,93E-03
N-HWD	kg	7,53E-03	6,70E-03	3,58E-04	4,46E-05	9,95E-05	3,25E-04	-7,63E-04
RWD	kg	7,17E-05	6,41E-05	1,92E-08	9,11E-08	5,25E-06	2,27E-06	-3,76E-06

### Output flow indicators

Indicator	Unit	Total	Manufacturing	Distribution	Installation	Use	End of life	Benefits
CfRu	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MfR	kg	5,43E-02	0,00E+00	0,00E+00	5,86E-03	0,00E+00	4,84E-02	0,00E+00
MfER	kg	2,73E-02	1,81E-03	0,00E+00	4,73E-05	0,00E+00	2,55E-02	0,00E+00
EE	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

### Other indicators

Indicator	Unit	Total
Biogenic Carbon	Product	kg of C 0,00E+00
	Packaging	kg of C 1,06E-02

## Extrapolation Factors

For other products than the Reference product covered by this PEP, the environmental impacts for each phase of the lifecycle are obtained by multiplying the values of the Reference product by the following coefficients:

\* if the coefficient is !1, the impacts of the phase of the life cycle are assimilated to the Reference product, meaning that the impacts are unchanged in comparison to the Reference product

Product name	Manu- facturing	Distribution	Installation	Use	End of life	Benefits
2TKA00000931	1,00	1,00	1,00	1,00	1,00	1,00
2TKA00006125	1,23	1,23	1,00	1,00	1,30	1,23
2TKA00006127	0,63	0,63	1,00	1,00	0,51	0,63
2TKA00006126	1,23	1,23	1,00	1,00	1,30	1,23
2TKA00006128	0,63	0,63	1,00	1,00	0,51	0,63
2TKA00004539	0,98	0,98	0,92	1,00	1,00	0,98
2TKA00000933	0,60	0,60	0,75	1,00	0,55	0,60
2TKA00000932	0,69	0,69	0,86	1,00	0,64	0,69
2TKA00000934	0,72	0,72	0,75	1,00	0,71	0,72
2TKA00000936	0,72	0,72	0,75	1,00	0,71	0,72
2TKA00000935	0,72	0,72	0,75	1,00	0,71	0,72
2TKA00004433	0,72	0,72	0,75	1,00	0,71	0,72

# Glossary

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## Environmental impact Indicators

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GWP-total	Global Warming Potential total (Climate change)
GWP-fossil	Global Warming Potential fossil
GWP-biogenic	Global Warming Potential biogenic
GWP-land use	Global Warming Potential land use and land use change
ODP	Depletion potential of the stratospheric ozone layer
AP	Acidification potential
EP-freshwater	Eutrophication potential - freshwater compartment
EP-marine	Eutrophication potential - fraction of nutrients reaching marine end compartment
EP-terrestrial	Eutrophication potential - Accumulated Exceedance
POCP	Tropospheric ozone creation potential
ADP-m&m	Abiotic Depletion for non-fossil resources potential
ADP-fossil	Abiotic Depletion for fossil resources potential
WDP	Water deprivation potential

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## Resource indicators

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PENRE	Use of non-renewable primary energy excluding renewable primary energy resources used as raw material
PENRM	Use of non-renewable primary energy resources used as raw material
PENRT	Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials)
PERE	Use of renewable primary energy excluding non-renewable primary energy resources used as raw material.
PERM	Use of renewable primary energy resources used as raw material
PERT	Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials)

Secondary materials, water and energy resources		Waste category indicators	
SM	Use of secondary materials	HWD	Hazardous waste disposed
RSF	Use of renewable secondary fuels	N-HWD	Non-hazardous waste disposed
NRSF	Use of non-renewable secondary fuels	RWD	Radioactive waste disposed
FW	Net use of fresh water		

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Output flow indicators	
CfRu	Components for re-use
MfR	Materials for recycling
MfER	Materials for energy recovery
EE	Exported Energy