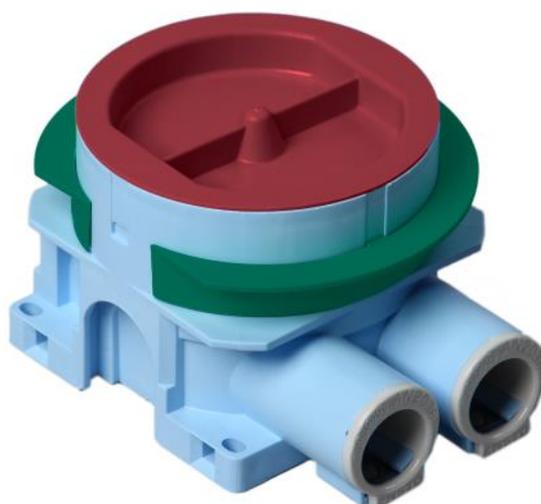


SYSTEM IDEAL BOXES

PEP ecopassport®

Product Environmental Profile



Product Environmental Profile - PEP Ecopassport.
Document in compliance with ISO 14025: 2006 "Environmental labels and declarations. Type III environmental declarations"

ORGANIZATION		CONTACT INFORMATION			
ABB Wiring Accessories		ella.helynranta@fi.abb.com			
ADDRESS		WEBSITE			
Porvoon Sisäkehä 2, 06100 Porvoo, Finland		www.abb.com			
STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE
Approved	Public	ABBG-00536-V01.01-EN	1	en	1/11



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.

Scan or click the QR code for more information on the topic



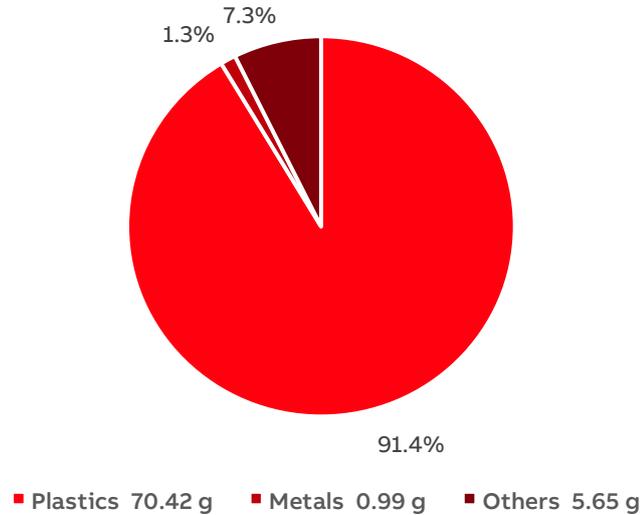
General Information

Reference product	2TKA001744G1 - AU60.1
Description of the product	The System Ideal series includes a wide range of products that covers even the most demanding installation needs. The products were developed with a focus on detail that streamline the work and produce good, cost-effective results. AU60.1 is a mounting box that has a rotating ring for adjusting the screw holes for device installation in optimal angle and screw distance is c/c 60mm.
Functional unit	Protect persons during 20 years against direct contact with live parts and allow grouping monitoring, control, and protection devices in a single enclosure or a cabinet having the following dimensions 91 x 71 x 57 (mm) while protecting against the penetration of solid objects (IP3X) in accordance with the standard IEC 60529.
Other products covered	The other products covered by the PEP are listed on page 9.

STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE
Approved	Public	ABBG-00536-V01.01-EN	1	en	2/11



Constituent Materials



Total weight of Reference product

77.06

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%
Polypropylene	54.7	Stainless Steel	1.0	Carton	7.2
Post-consumer PP	15.8	Carbon steel	0.3	Paper	0.1
Polyamide 6 GF25	10.5	–	x	–	x
Polycarbonate	7.7	–	x	–	x
PE based colors	2.7	–	–	–	–

The product is manufactured from halogen free material (IEC/61249-2-21), the box complies with the IEC/EN60670:2005 glow wire test (850 °C). The recycled Polypropylene used in the product is 100% from post-consumer plastic waste, which is collected from Finnish households.

STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE
Approved	Public	ABBG-00536-V01.01-EN	1	en	3/11



Additional Environmental Information

Manufacturing	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. The product is manufactured at an ISO 14000 certified plant.
Distribution	Includes the transportation of the packaged product from the manufacturer's last logistic platform to the distributor.
Installation	Includes the manual installation of the products and the end-of-life of packaging, the box lid and installation waste.
Use	The product does not require special maintenance operations.
End of life	Includes the transportation of the product to the final end-of-life treatment site and treatment processes.
Benefits and loads beyond the system boundaries	Prevented impacts of recycling materials.

STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE
Approved	Public	ABBG-00536-V01.01-EN	1	en	4/11



Environmental Impacts

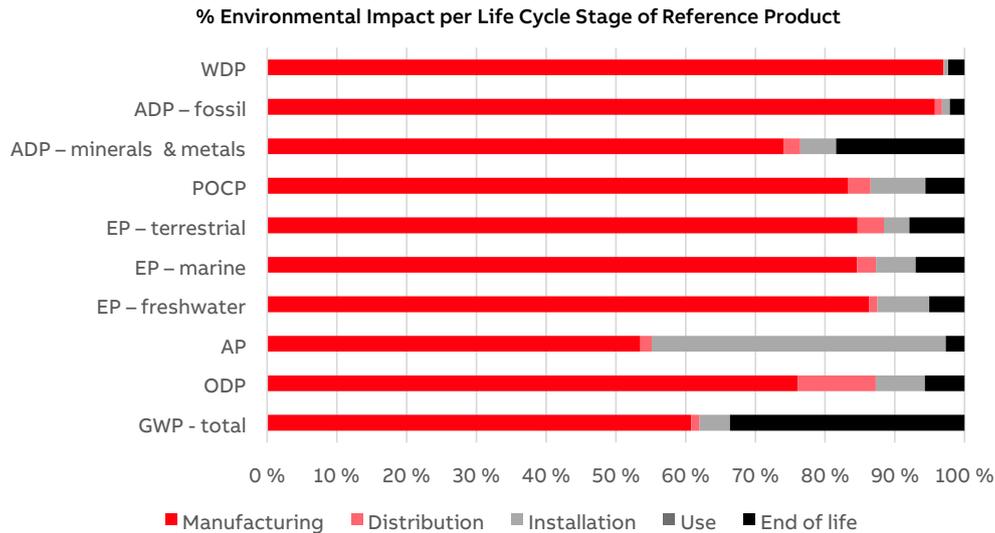
Reference lifetime	20 years
Product category	Unequipped enclosures and cabinets
Installation elements	Two screws
Use scenario	Non applicable for unequipped enclosures and cabinets
Geographical representativeness	European market with great emphasis on the Sweden
Technological representativeness	The manufacturing processes considered are representative of the products production
Software and database used	Software: SimaPro version 9.4.0.2 Database: ecoinvent 3.8 and Industry data 2.0

Energy model used

Manufacturing	Finland
Installation	Sweden
Use	Non applicable
End of life	Sweden

STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE
Approved	Public	ABBG-00536-V01.01-EN	1	en	5/11

Common base of mandatory indicators



Environmental impact indicators

Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life	Benefi- ts
GWP-total	kg CO₂ eq.	3.32E-01	2.02E-01	4.01E-03	1.45E-02	0.00E+00	1.12E-01	-3.88E-02
GWP-fossil	kg CO₂ eq.	3.34E-01	2.06E-01	4.01E-03	1.23E-02	0.00E+00	1.12E-01	-3.98E-02
GWP-biogenic	kg CO₂ eq.	-2.05E-03	-4.27E-03	3.19E-06	2.20E-03	0.00E+00	2.17E-05	1.15E-03
GWP-luluc	kg CO₂ eq.	3.15E-04	2.41E-04	1.65E-06	2.43E-05	0.00E+00	4.78E-05	-2.06E-04
GWP-fossil = Global Warming Potential fossil fuels GWP-biogenic = Global Warming Potential biogenic GWP-luluc = Global Warming Potential land use and land use change								
ODP	kg CFC-11 eq.	8.21E-09	6.24E-09	4.01E-03	1.23E-02	0.00E+00	1.12E-01	-3.98E-02
ODP = Depletion potential of the stratospheric ozone layer								
AP	H+ eq.	1.38E-03	7.39E-04	2.30E-05	5.82E-04	0.00E+00	3.72E-05	-1.77E-04
AP = Acidification potential, Accumulated Exceedance								
EP-freshwater	kg P eq.	2.18E-05	1.88E-05	2.51E-07	1.62E-06	0.00E+00	1.11E-06	-6.21E-06
EP-marine	kg N eq.	2.41E-04	2.04E-04	6.49E-06	1.37E-05	0.00E+00	1.69E-05	-4.64E-05
EP-terrestrial	mol N eq.	1.89E-03	1.60E-03	7.13E-05	6.92E-05	0.00E+00	1.49E-04	-3.87E-04
EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment EP-terrestrial = Eutrophication potential, Accumulated Exceedance								
POCP	kg NMVOC eq.	6.53E-04	5.44E-04	2.08E-05	5.13E-05	0.00E+00	3.67E-05	-1.09E-04
POCP = Formation potential of tropospheric ozone								
ADP-minerals & metals	kg Sb eq.	5.56E-07	4.12E-07	1.34E-08	2.86E-08	0.00E+00	1.02E-07	-2.58E-07
ADP-fossil	MJ	5.90E+00	5.65E+00	6.00E-02	6.51E-02	0.00E+00	1.26E-01	-1.04E+00
ADP-minerals & metals = Abiotic depletion potential for non-fossil resources ADP-fossil = Abiotic depletion for fossil resources potential								
WDP	m³ eq. depr.	2.80E-01	2.72E-01	1.76E-04	1.79E-03	0.00E+00	6.57E-03	-4.06E-02
WDP = Water Deprivation potential								

STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE
Approved	Public	ABBG-00536-V01.01-EN	1	en	6/11

Common base of mandatory indicators

Inventory flows indicator – Resource use indicators

Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life	Bene- fits
PERE	MJ	2.88E-01	2.39E-01	8.24E-04	1.00E-02	0.00E+00	3.90E-02	-1.87E-01
PERM	MJ	7.17E-02	7.17E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	3.60E-01	3.10E-01	8.24E-04	1.00E-02	0.00E+00	3.90E-02	-1.87E-01
PENRE	MJ	3.05E+00	2.80E+00	6.00E-02	6.52E-02	0.00E+00	1.26E-01	-1.04E+00
PENRM	MJ	2.85E+00	2.85E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	5.89E+00	5.64E+00	6.00E-02	6.52E-02	0.00E+00	1.26E-01	-1.04E+00

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials

PERM = Use of renewable primary energy resources used as raw materials

PERT = Total Use of renewable primary energy resources

PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials

PENRM = Use of non-renewable primary energy resources used as raw materials

PENRT = Total Use of non-renewable primary energy resources

Inventory flows indicator – Indicators describing the use of secondary materials, water, and energy resources

Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life	Bene- fits
SM	kg	1.67E-02	1.67E-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 ³	2.79E-03	2.52E-03	4.98E-06	5.10E-05	0.00E+00	2.14E-04	-6.73E-04

SM = Use of secondary material

RSF = Use of renewable secondary fuels

NRSF = Use of non-renewable secondary fuels

FW = Use of net fresh water

Inventory flows indicator – Waste category indicators

Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life	Bene- fits
Hazardous waste disposed	kg	2.54E-06	2.15E-06	1.52E-07	1.05E-07	0.00E+00	1.33E-07	-4.03E-07
Non- hazardous waste disposed	kg	1.92E-02	1.76E-02	1.98E-04	1.02E-03	0.00E+00	3.49E-04	-4.50E-03
Radioactive waste disposed	kg	1.87E-05	1.65E-05	4.07E-07	2.86E-07	0.00E+00	1.51E-06	-7.80E-06

STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE
Approved	Public	ABBG-00536-V01.01-EN	1	en	7/11

Common base of mandatory indicators

Inventory flows indicator – Output flow indicators

Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life	Bene- fits
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	kg	4.05E-02	0.00E+00	0.00E+00	2.35E-02	0.00E+00	1.71E-02	0.00E+00
Materials for energy recovery	kg	5.15E-02	1.94E-03	0.00E+00	3.51E-03	0.00E+00	4.61E-02	0.00E+00
Exported energy	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Inventory flow indicator – other indicators

Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life	Bene- fits
Biogenic carbon content of the product	kg of C	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Biogenic carbon content of the associated packaging	kg of C	2.51E-03	2.51E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE
Approved	Public	ABBG-00536-V01.01-EN	1	en	8/11

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	Distri- bution	Installation	Use	End of life	Benefits
2TKA00001481	0.85	0.85	0.97	1.00	0.84	0.85
2TKA00003511	1.09	1.09	1.27	1.00	1.07	1.09
2TKA001746G1	1.80	1.80	1.05	1.00	1.91	1.80
2TKA001748G1	1.88	1.88	0.90	1.00	2.04	1.88
2TKA00004282	1.16	1.16	0.98	1.00	1.19	1.16
2TKA00002672	1.00	1.00	1.01	1.00	1.00	1.00
2TKA00001464	1.80	1.80	1.06	1.00	1.91	1.80
2TKA00001465	1.89	1.89	0.92	1.00	2.04	1.89
2TKA00004281	1.27	1.27	1.29	1.00	1.27	1.27
2TKA00003942	2.09	2.09	1.27	1.00	2.22	2.09
2TKA00003706	0.85	0.85	0.96	1.00	0.84	0.85

STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE
Approved	Public	ABBG-00536-V01.01-EN	1	en	9/11

Environmental Impact Indicator Glossary

Impact indicators

Indicator	Description	Distribution
Global warming potential (GWP) - total	Indicator of potential global warming caused by emissions to air contributing to the greenhouse effect. The total global warming potential (GWP-total) is the sum of three sub-categories of climate change. GWP-total = GWP-fossil + GWP-biogenic + GWP- land use and land use change	kg CO ₂ eq.
Ozone depletion (ODP)	Emissions to air that contribute to the destruction of the stratospheric ozone layer	kg CFC-11 eq.
Acidification of soil and water (A)	Acidification of soils and water caused by the release of certain gases to the atmosphere, such as nitrogen oxides and sulphur oxides	H ⁺ eq.
Eutrophication (E)	Indicator of the contribution to eutrophication of water by the enrichment of the aquatic ecosystem with nutritional elements, e.g. industrial or domestic effluents, agriculture, etc. This indicator is divided to three: freshwater, marine and terrestrial.	kg P eq., kg N eq., mole N eq.
Photochemical ozone creation (POCP)	Indicator of emissions of gases that affect the creation of photochemical ozone in the lower atmosphere (smog) because of the rays of the sun.	kg NMVOC eq.
Depletion of abiotic resources – elements (ADPe)	Indicator of the depletion of natural non-fossil resources	kg Sb eq.
Depletion of abiotic resources – fossil fuels (ADPf)	The use of non-renewable fossil resources in an unsustainable way (e.g. from material to waste)	MJ (lower heating value)
Water Deprivation potential (WDP)	Deprivation-weighted water consumption. Assesses the potential of water deprivation, to either humans or ecosystems, building on the assumption that the less water remaining available per area, the more likely another user will be deprived.	m ³ eq. depr.

Resource use indicators

Indicator	Description	Distribution
Total use of primary energy	Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials) + Total use of renewable primary energy re-sources (primary energy and primary energy resources used as raw materials)	MJ (lower heating value)

STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE
Approved	Public	ABBG-00536-V01.01-EN	1	en	10/11

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Verifier accreditation number: VH08	Information and reference documents: www.pep-ecopassport.org
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Independent verification of the declaration and data, in compliance with ISO 14025: 2006	
Internal: <input type="radio"/>	External: <input checked="" type="radio"/>
Document in compliance with ISO 14025: 2006 "Environmental labels and declarations. Type III environmental declarations"	
PEP are compliant with XP C08-100-1 :2016 or EN 50693:2019 The elements of the present PEP cannot be compared with elements from any other program.	
Document in compliance with ISO 14025: 2006 "Environmental labels and declarations. Type III environmental declarations"	

STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE
Approved	Public	ABBG-00536-V01.01-EN	1	en	11/11