CABLE BOX INSERT ACCESSORIES

Product Environmental Profile

Environmental Product Declaration

Document in compliance with ISO 14025: 2010 "Environmental labels and declarations. Type III environmental declarations"

ORGANIZATION		CONTACT INFORMATION			
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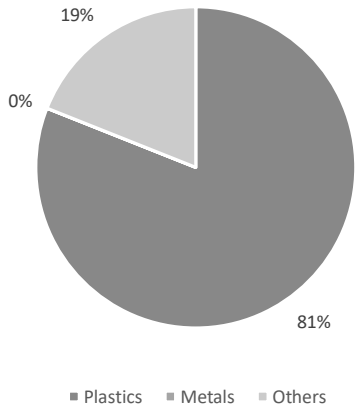
ABB Purpose & Embedding Sustainability

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.

General Information

Reference product	1SPA007139F9120 2008.191 S
Description of the product	Accoissoires to the 3640 cable box series, like cable support,
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 30 x 20 x 24 mm and permission a maximum power of 11040 W while protecting against the penetration of solid objects and liquids (IP20) in accordance with the standard IEC 60670. No IK grade is declared for this product.
Other products covered	1SPA007138F9100 3523 S, 1SPA007138F9110 3525 S, 1SPA007138F9120 3529 S

Constituent materials



Total weight of Reference product	1,63E-03

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-%
Plastics	81	Metals	0	Others	1
–	–	–	–	Packaging	18

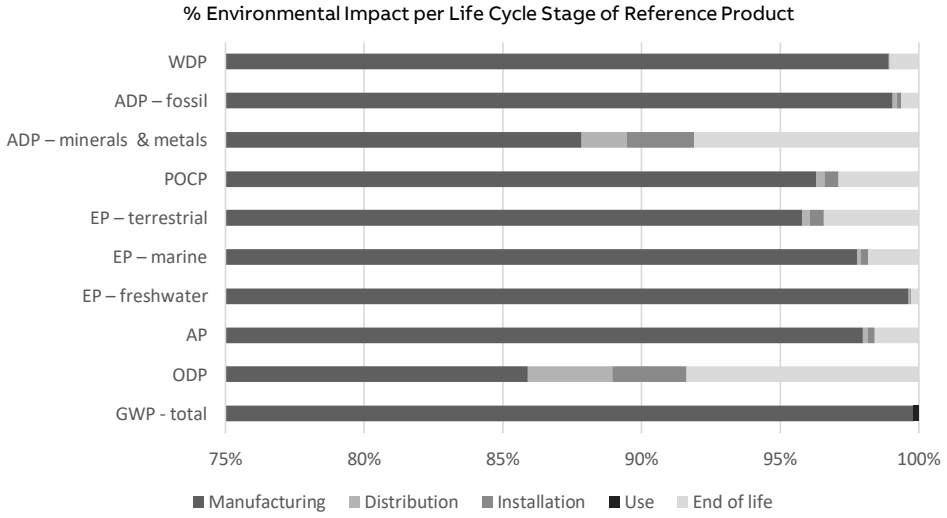
Additional Environmental Information

Manufacturing	Manufactured at Ede factory in the Netherlands, ISO 14001 certified. In the manufacturing process is considered the raw material including the packaging, its transport to the production site and the manufacturing process itself.
Distribution	Packaging consists of a cardboard box, a pallet and LDPE. The transport distance per product is 150 kilometres, which is based on the default transport distance for the distribution stage from the National Environmental Database (Nationale Milieu Database, hereafter referred to as NMD) Dutch standard Environmental Performance Assessment Method for Construction Works, calculation method to determine environmental performance of construction works throughout their service life, based on EN 15804 (hereafter referred as NMD Assessment method).
Installation	For the installation of the product, no special installation procedure is required and no significant energy is required to install the products. In some occassions, screws are used to fix products to a surface wich is out of the scope of this report.
Use	The product does not require special maintainance operations and do not dissipate any energy.
End of life	No special end-of-life treatment is required. The waste treatment and disposal scenarios of the materials are based on default waste treatment and disposal scenarios from the Dutch standard NMD Assessment method.
Benefits and loads beyond the system boundaries	Benefits and loads beyond the system boundaries are included

Environmental impacts

Reference lifetime	20 years
Product category	Unequipped enclosures and cabinets
Installation elements	Clickable to standard installation material and accessories, also the product can be fixated by screws.
Use scenario	Non applicable for unequipped enclosures and cabinets
Geographical representativeness	Good quality
Technological representativeness	Good quality
Software and database used	LCA calculations made with Simapro 9.3, with the EN 15804:2019+A2 characterization factors (IPCC AR5) and Ecoinvent version 3.8 database
Energy model used	
Manufacturing	Electricity, low voltage {NL}| market for | Cut-off, S
Installation	Non-applicable
Use	Non-applicable
End of life	Electricity, low voltage {NL}| market for | Cut-off, S

Common base of mandatory indicators



Environmental impact indicators

Indicator	Unit	Total	Manu-facturing	Distri-bution	Instal-lation	Use	End of life	Bene-fits
GWP-total	kg CO_2 eq.	1,71E-02	1,21E-02	2,23E-05	2,04E-03	0,00E+00	2,94E-03	-1,88E-02
GWP-fossil	kg CO_2 eq.	1,68E-02	1,36E-02	2,23E-05	2,46E-04	0,00E+00	2,91E-03	-2,07E-02
GWP-biogenic	kg CO_2 eq.	3,39E-04	-1,48E-03	1,62E-08	1,80E-03	0,00E+00	2,19E-05	1,87E-03
GWP-luluc	kg CO_2 eq.	6,23E-06	6,17E-06	6,50E-09	7,08E-09	0,00E+00	4,88E-08	-4,32E-06
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.	1,72E-10	1,48E-10	5,23E-12	4,59E-12	0,00E+00	1,44E-11	-1,68E-09
ODP = Depletion potential of the stratospheric ozone layer								
AP	H+ eq.	5,52E-05	5,41E-05	9,35E-08	1,44E-07	0,00E+00	8,74E-07	-3,89E-05
AP = Acidification potential, Accumulated Exceedance								
EP-freshwater	kg P eq.	5,62E-07	5,60E-07	1,70E-10	2,74E-10	0,00E+00	1,62E-09	-5,26E-07
EP-marine	kg N eq.	2,02E-05	1,97E-05	2,81E-08	5,31E-08	0,00E+00	3,68E-07	-9,34E-06
EP-terrestrial	mol N eq.	1,12E-04	1,07E-04	3,11E-07	5,71E-07	0,00E+00	3,83E-06	-1,06E-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.	3,40E-05	3,27E-05	1,00E-07	1,70E-07	0,00E+00	9,84E-07	-3,26E-05
POCP = Formation potential of tropo-spheric ozone								
ADP-minerals & metals	kg Sb eq.	2,31E-08	2,03E-08	3,80E-10	5,63E-10	0,00E+00	1,87E-09	-3,26E-08
ADP-fossil	MJ	2,03E-01	2,01E-01	3,46E-04	3,27E-04	0,00E+00	1,27E-03	-3,18E-01
ADP-minerals & metals = Abiotic depletion potential for non-fossil resources ADP-fossil = Abiotic deple-tion for fossil resources potential								
WDP	m^3 e depr.	1,36E-02	1,34E-02	1,12E-06	1,24E-06	0,00E+00	1,45E-04	-2,66E-03
WDP = Water Deprivation potential								

Common base of mandatory indicators

Inventory flows indicator – Resource use indicators

Indicator	Unit	Total	Manu-facturing	Distri-bution	Instal-lation	Use	End of life	Bene-fits
PERE	MJ	2,86E-04	2,28E-04	4,36E-06	6,84E-06	0,00E+00	4,71E-05	-3,56E-02
PERM	MJ	2,11E-03	2,11E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	2,39E-03	2,34E-03	4,36E-06	6,84E-06	0,00E+00	4,71E-05	-3,56E-02
PENRE	MJ	1,77E-01	1,75E-01	3,68E-04	3,48E-04	0,00E+00	1,37E-03	-3,45E-01
PENRM	MJ	4,17E-02	4,17E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	2,19E-01	2,16E-01	3,68E-04	3,48E-04	0,00E+00	1,37E-03	-3,45E-01

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 re-sources)

Inventory flows indicator – Indicators describing the use of secondary materials, water, and energy re-sources

Indicator	Unit	Total	Manu-facturing	Distri-bution	Instal-lation	Use	End of life	Bene-fits
SM	kg	7,42E-04	7,42E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	1,04E-02	1,04E-02	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	3,26E-04	3,21E-04	3,94E-08	6,38E-08	0,00E+00	4,50E-06	-1,07E-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	Instal-lation	Use	End of life	Bene-fits
Hazardous waste disposed	kg	5,07E-08	4,58E-08	8,40E-10	1,01E-09	0,00E+00	3,11E-09	-2,63E-07
Non- hazardous waste disposed	kg	4,53E-04	3,02E-04	3,01E-05	2,29E-05	0,00E+00	9,81E-05	-4,96E-04
Radioactive waste disposed	kg	7,49E-08	6,54E-08	2,36E-09	2,06E-09	0,00E+00	5,05E-09	-3,37E-07

Common base of mandatory indicators

Inventory flows indicator – Output flow indicators

Indicator	Unit	Total	Manu-facturing	Distri-bution	Instal-lation	Use	End of life	Bene-fits
Components for re-use	kg	0,000E+00	0,000E+00	0,000E+00	0,000E+00	0,000E+00	0,000E+00	0,000E+00
Materials for recycling	kg	1,456E-04	0,000E+00	0,000E+00	0,000E+00	0,000E+00	1,456E-04	0,000E+00
Materials for energy recovery	kg	1,199E-03	0,000E+00	0,000E+00	0,000E+00	0,000E+00	1,199E-03	0,000E+00
Exported energy	MJ	7,589E-03	0,000E+00	0,000E+00	0,000E+00	0,000E+00	7,589E-03	0,000E+00

Inventory flow indicator – other indicators

Indicator	Unit	Total
Biogenic carbon content of the product	kg of C	2,21E-05
Biogenic carbon content of the associated packaging	kg of C	5,72E-04

Optional indicators

Environmental indicators

Indicator	Unit	Total	Manu-facturing	Distri-bution	Instal-lation	Use	End of life	Bene-fits
Total use of primary energy during the life cycle	MJ	4,42E-01	4,38E-01	7,44E-04	7,10E-04	0,00E+00	2,83E-03	-7,61E-01
Emissions of fine particles	inci-dence of dis-eases	4,81E-10	4,69E-10	2,01E-12	2,29E-12	0,00E+00	7,12E-12	-1,94E-10
Ionizing radiation, human health	kBq U235 eq.	6,86E-05	6,20E-05	1,51E-06	1,37E-06	0,00E+00	3,71E-06	-3,32E-04
Ecotoxicity (fresh water)	CTUe	6,53E-02	5,80E-02	2,76E-04	4,21E-04	0,00E+00	6,67E-03	-1,86E-01
Human toxicity, car-cinogenic effects	CTUh	2,76E-12	2,42E-12	6,80E-15	2,31E-14	0,00E+00	3,05E-13	-3,56E-12
Human toxicity, non-carcinogenic effects	CTUh	4,93E-11	3,75E-11	3,14E-13	7,92E-13	0,00E+00	1,07E-11	-8,17E-11
Impact related to land use/soil quality	kg	1,42E-01	1,40E-01	3,97E-04	2,69E-04	0,00E+00	8,63E-04	-1,96E-01

Other indicators

Indicator	Unit	Total	Manu-facturing	Distri-bution	Instal-lation	Use	End of life	Bene-fits
No Other indicators used								

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:

Product name	Manufacturing	Distribution	Instal-lation	Use	End of life	Benefits
1SPA007138F9100	–	–	–	–	–	–
051. Climate change	1,74E-01	1,90E+00	1,03E+00	0,00E+00	2,07E+00	1,45E+00
052. Climate change - Fossil	2,66E-01	1,90E+00	1,29E+00	0,00E+00	2,08E+00	1,41E+00
053. Climate change - Biogenic	1,02E+00	1,90E+00	1,00E+00	0,00E+00	1,00E+00	1,01E+00
054. Climate change - Land use and LU ch	1,08E+00	1,90E+00	1,03E+00	0,00E+00	2,08E+00	1,23E+00
055. Ozone depletion	1,52E+00	1,90E+00	1,03E+00	0,00E+00	2,07E+00	1,41E+00
056. Acidification	1,83E-01	1,90E+00	1,07E+00	0,00E+00	2,08E+00	1,39E+00
057. Eutrophication, freshwater	3,16E-01	1,90E+00	1,03E+00	0,00E+00	2,07E+00	1,40E+00
058. Eutrophication, marine	1,13E-01	1,90E+00	1,09E+00	0,00E+00	2,08E+00	1,38E+00
059. Eutrophication, terrestrial	2,40E-01	1,90E+00	1,09E+00	0,00E+00	2,08E+00	1,39E+00
060. Photochemical ozone formation	2,29E-01	1,90E+00	1,08E+00	0,00E+00	2,08E+00	1,38E+00
061. Resource use, minerals and metals	1,18E+00	1,90E+00	1,03E+00	0,00E+00	2,07E+00	1,33E+00
062. Resource use, fossils	2,66E-01	1,90E+00	1,04E+00	0,00E+00	2,07E+00	1,41E+00
063. Water use	4,86E-02	1,90E+00	1,11E+00	0,00E+00	2,08E+00	1,39E+00
064. Particulate matter	1,62E-01	1,90E+00	1,03E+00	0,00E+00	2,07E+00	1,31E+00
065. Ionising radiation	1,56E+00	1,90E+00	1,02E+00	0,00E+00	2,07E+00	1,39E+00
066. Ecotoxicity, freshwater	1,07E+00	1,90E+00	1,05E+00	0,00E+00	2,08E+00	1,36E+00
067. Human toxicity, cancer	6,86E-01	1,90E+00	1,11E+00	0,00E+00	2,08E+00	1,31E+00
068. Human toxicity, non-cancer	8,23E-01	1,90E+00	1,13E+00	0,00E+00	2,08E+00	1,37E+00
069. Land use	1,02E+00	1,90E+00	1,03E+00	0,00E+00	2,08E+00	1,08E+00

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:

Product name	Manufacturing	Distribution	Instal-lation	Use	End of life	Benefits
1SPA007138F9110						
051. Climate change	3,20E-01	3,32E+00	1,71E+00	0,00E+00	3,45E+00	1,45E+00
052. Climate change - Fossil	4,40E-01	3,32E+00	1,30E+00	0,00E+00	3,47E+00	1,45E+00
053. Climate change - Biogenic	1,44E+00	3,32E+00	1,76E+00	0,00E+00	1,04E+00	1,42E+00
054. Climate change - Land use and LU ch	3,32E+00	3,32E+00	2,41E+00	0,00E+00	3,46E+00	1,78E+00
055. Ozone depletion	2,67E+00	3,32E+00	2,19E+00	0,00E+00	3,45E+00	1,45E+00
056. Acidification	3,11E-01	3,32E+00	2,29E+00	0,00E+00	3,46E+00	1,46E+00
057. Eutrophication, freshwater	5,42E-01	3,32E+00	2,68E+00	0,00E+00	3,45E+00	1,45E+00
058. Eutrophication, marine	1,99E-01	3,32E+00	2,27E+00	0,00E+00	3,46E+00	1,48E+00
059. Eutrophication, terrestrial	4,14E-01	3,32E+00	2,25E+00	0,00E+00	3,46E+00	1,47E+00
060. Photochemical ozone formation	3,78E-01	3,32E+00	2,35E+00	0,00E+00	3,46E+00	1,45E+00
061. Resource use, minerals and metals	2,00E+00	3,32E+00	2,69E+00	0,00E+00	3,44E+00	1,52E+00
062. Resource use, fossils	4,26E-01	3,32E+00	2,23E+00	0,00E+00	3,45E+00	1,45E+00
063. Water use	7,71E-02	3,32E+00	2,64E+00	0,00E+00	3,47E+00	1,45E+00
064. Particulate matter	2,84E-01	3,32E+00	2,43E+00	0,00E+00	3,44E+00	1,54E+00
065. Ionising radiation	2,72E+00	3,32E+00	2,29E+00	0,00E+00	3,45E+00	1,45E+00
066. Ecotoxicity, freshwater	2,27E+00	3,32E+00	2,55E+00	0,00E+00	3,47E+00	1,62E+00
067. Human toxicity, cancer	1,26E+00	3,32E+00	2,35E+00	0,00E+00	3,47E+00	1,46E+00
068. Human toxicity, non-cancer	1,40E+00	3,32E+00	2,00E+00	0,00E+00	3,47E+00	1,47E+00
069. Land use	1,53E+00	3,32E+00	1,85E+00	0,00E+00	3,46E+00	1,49E+00

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:

Product name	Manufacturing	Distribution	Instal-lation	Use	End of life	Benefits
1SPA007138F9120						
051. Climate change	3,41E-01	4,32E+00	2,93E+00	0,00E+00	4,26E+00	1,80E+00
052. Climate change - Fossil	5,77E-01	4,32E+00	1,82E+00	0,00E+00	4,28E+00	1,86E+00
053. Climate change - Biogenic	2,53E+00	4,32E+00	3,08E+00	0,00E+00	1,14E+00	2,47E+00
054. Climate change - Land use and LU ch	5,65E+00	4,32E+00	4,16E+00	0,00E+00	4,27E+00	2,73E+00
055. Ozone depletion	3,65E+00	4,32E+00	3,77E+00	0,00E+00	4,26E+00	1,88E+00
056. Acidification	4,32E-01	4,32E+00	3,89E+00	0,00E+00	4,27E+00	1,92E+00
057. Eutrophication, freshwater	7,15E-01	4,32E+00	4,63E+00	0,00E+00	4,26E+00	1,90E+00
058. Eutrophication, marine	2,82E-01	4,32E+00	3,83E+00	0,00E+00	4,27E+00	1,96E+00
059. Eutrophication, terrestrial	5,79E-01	4,32E+00	3,79E+00	0,00E+00	4,27E+00	1,94E+00
060. Photochemical ozone formation	5,35E-01	4,32E+00	3,98E+00	0,00E+00	4,27E+00	1,92E+00
061. Resource use, minerals and metals	2,79E+00	4,32E+00	4,66E+00	0,00E+00	4,24E+00	2,12E+00
062. Resource use, fossils	5,63E-01	4,32E+00	3,83E+00	0,00E+00	4,26E+00	1,87E+00
063. Water use	1,05E-01	4,32E+00	4,44E+00	0,00E+00	4,28E+00	1,89E+00
064. Particulate matter	4,43E-01	4,32E+00	4,20E+00	0,00E+00	4,25E+00	2,18E+00
065. Ionising radiation	3,72E+00	4,32E+00	3,96E+00	0,00E+00	4,25E+00	1,91E+00
066. Ecotoxicity, freshwater	3,41E+00	4,32E+00	4,37E+00	0,00E+00	4,28E+00	2,26E+00
067. Human toxicity, cancer	1,95E+00	4,32E+00	3,93E+00	0,00E+00	4,28E+00	2,05E+00
068. Human toxicity, non-cancer	1,92E+00	4,32E+00	3,29E+00	0,00E+00	4,28E+00	1,96E+00
069. Land use	2,62E+00	4,32E+00	3,19E+00	0,00E+00	4,27E+00	2,48E+00

Registration number:		Drafting Rules:	PCR-ed4-EN-2021 09 06
ABBG-00122-V01.01-EN		Supplemented by:	PSR-0005-ed2-EN-2016 03 29
Verifier accreditation number:		Information and reference documents:	
VH42		www.pep-ecopassport.org	
Date of issue:	December 2022	Validity period:	5 years

Independent verification of the declaration and data, in compliance with ISO 14025: 2010

Internal ○ External ◉

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

PEP are compliant with XP C08-100-1: 2016 or EN 50693:2019
The components of the present PEP may not be compared with components from any other program.

Document in compliance with ISO 14025: 2010 "Environmental labels and declarations. Type III environmental declarations"

Environmental Impact Indicator Glossary

Impact indicators

Indicator	Description	Unit
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 e depr.

Resource use indicators

Indicator	Description	Unit
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)