ABB DS203NC RESIDUAL CURRENT BREAKERS WITH OVERCURRENT PROTECTION

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			
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STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE
Approved	Public	ABBG-00605-V01.01-EN	1	en	1/14

ABB Purpose & Embedding Sustainability

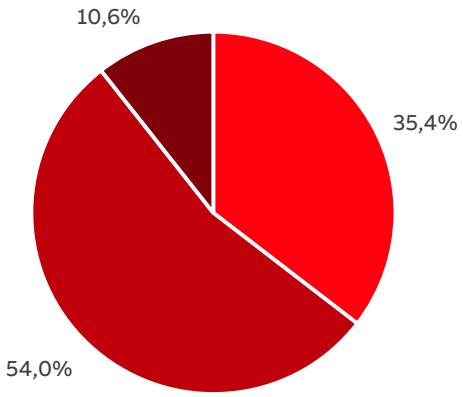
ABB is committed to continually promoting and embedding sustainability across its operations and value chain, aspiring to become a role model for others to follow.
With its ABB Purpose, ABB is focusing on reducing harmful emissions, preserving natural resources and championing ethical and humane behavior.

"other points or for example a QR code or link to ABB website, where more information on the topic"

General Information

Reference product	2CSR256140R1165 - ABB DS203NC B16 A30
Description of the product	The ABB DS203NC products are universal Residual Current Circuit Breaker with Overcurrent Protection; the devices are designed for the protection of end user single-phase circuits against overload and short-circuit currents; it also provides protection against the effects of sinusoidal alternating earth fault currents and against indirect contacts and additional protection against direct contacts.
Functional unit	The functional unit is designed to protect the installation against overloads and short circuits and protect people and premises at risk of fire or explosion against insulation defects in a circuit with rated voltage 415V rated current 16A, with 3P+N poles, a rated breaking capacity 6kA, the tripping curve type B, the sensitivity 30mA, and the differential protection type A, according to the appropriate use scenario, and in the Household/Commercial and during the reference service life of the product of 20 years - Number of poles 3P+N - Rated breaking capacity Icn 6kA - Tripping curve Cd type B - Sensitivity 30 mA - Type of differential protection A
Other products covered	DS203NC homogeneous family Ue [V] 415 In [A] 6/8/10/13/16/20/25/32 Np 3P+N Icn [A] 6 kA Tripping curve Cd B, C, K Type of differential protection A / AC / APR Rated Sensitivity [mA] 30/100/300

Constituent Materials



Total weight of Reference product included packaging	507,3	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%
PA	23,0	**Steel**	42,0	**Cardboard**	6,8
Glass Fiber	8,7	**Copper**	9,2	**wood**	2,5
PC	2,1	**Other Metal**	1,9	**Paper**	0,8
PTFE / PPS / PE	1,6	**Aluminium**	0,9	**Miscellaneous**	0,5

Total weight of the reference product 456,9 g plus packaging 50,4g

Additional Information

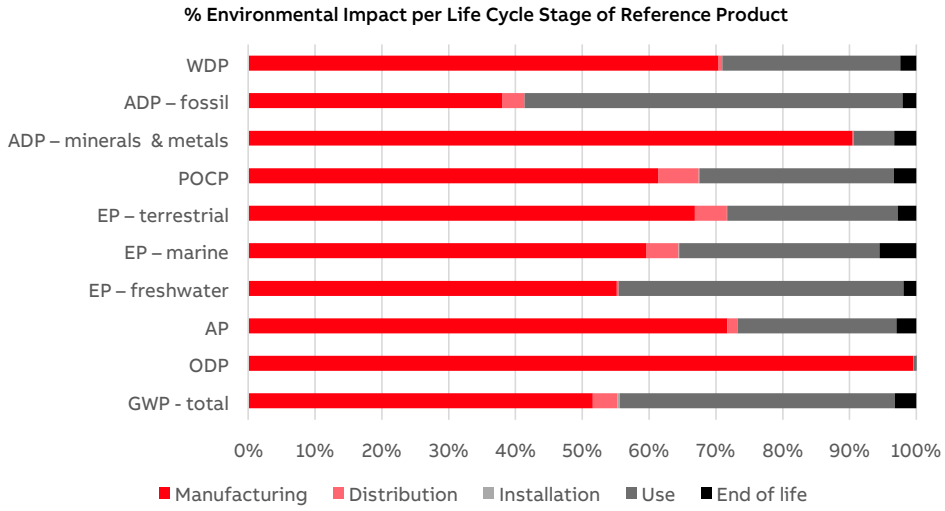
Manufacturing	The manufacturing stage includes the production and transportation to the manufacturer's last logistic platform of DS203NC and its packaging. The production occurs at the ABB factory located in Santa Palomba (RM).
Distribution	The transport from ABB Santa Palomba factory to Vignate, Milan was taken into account. For the distribution of the product from Vignate to the final customer, the intracontinental transport scenario provided by PCR-ed4-EN-2021 09 06 standard was adopted, considering the European macro-area.
Installation	The installation phase only implies manual activities and no energy is consumed. This phase also includes the disposal of the packaging of the product. Statistical average data from Eurostat databases [2023] were considered for the disposal of the product and its packaging.
Use	DS203NC dissipate some electricity due to power losses. The average power loss of the switch has been calculated as follow: - Nominal current load rate as 15% (Household / Commercial); - RSL of 20 years; - Functioning time of 30% of the RSL (α). No maintenance is planned for the product.
End of life	The default end of life scenario provided by the IEC/TR 62635 [2019] document has been adopted, considering the product transport by lorry over 1000 km and its disposal.
Benefits and loads beyond the system boundaries	The potential benefits derives from the impacts prevented by recycling and waste to energy recovery of the packaging in the installation phase

Environmental Impacts

Reference lifetime	20 years
Product category	Residual Current Circuit Breaker with Overcurrent Protection
Installation elements	No installation materials are required in the life cycle of the product.
Use scenario	The calculation of the use stage electricity consumption from the average power consider the following assumptions: - Nominal current load rate as 15% (Household / Commercial);
Geographical representativeness	Europe
Technological representativeness	Technological representativeness refers to the specific production process for primary data.
Software and database used	SimaPro 9.4.0.2 and ecoinvent 3.9.1

Energy model used	
Manufacturing	ABB GO energy mix 2022. The energy-related processes used for the remaining inputs are those included in the ecoinvent v3.9.1 datasets.
Installation	No energy consumption occur during the installation stage.
Use	Electricity, low voltage {RER}| market group for electricity, low voltage | Cut-off, S
End of life	The energy-related processes used for the inputs of the end-of-life stage are those included in the ecoinvent datasets selected for the analysis.

Common base of mandatory indicators



Environmental impact indicators

Indicator	Unit	Total (no benefits)	Manu-facturing	Distri-bution	Installation	Use	End of life	Bene-fits
GWP-total	**kg CO_2 eq.**	1,05E+01	5,44E+00	3,90E-01	4,00E-02	4,34E+00	3,38E-01	-1,13E+00
GWP-fossil	**kg CO_2 eq.**	1,02E+01	5,31E+00	3,89E-01	4,22E-03	4,18E+00	2,79E-01	-1,16E+00
GWP-biogenic	**kg CO_2 eq.**	3,69E-01	1,28E-01	3,54E-04	3,57E-02	1,46E-01	5,95E-02	3,57E-02
GWP-luluc	**kg CO_2 eq.**	1,63E-02	5,47E-03	1,90E-04	1,61E-06	1,04E-02	2,45E-04	-9,87E-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.**	2,08E-05	2,07E-05	8,52E-09	7,17E-11	7,98E-08	4,12E-09	-1,16E+00
ODP = Depletion potential of the stratospheric ozone layer								
AP	**H+ eq.**	1,01E-01	7,24E-02	1,61E-03	1,85E-05	2,40E-02	2,98E-03	-2,24E-02
AP = Acidification potential, Accumulated Exceedance								
EP-freshwater	**kg P eq.**	9,29E-03	5,12E-03	2,74E-05	4,70E-07	3,96E-03	1,77E-04	-1,76E-03
EP-marine	**kg N eq.**	1,29E-02	7,71E-03	6,15E-04	1,55E-05	3,88E-03	7,10E-04	-1,80E-03
EP-terrestrial	**mol N eq.**	1,38E-01	9,19E-02	6,56E-03	7,49E-05	3,51E-02	3,85E-03	-2,21E-02
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.**	3,87E-02	2,38E-02	2,36E-03	2,78E-05	1,13E-02	1,30E-03	-7,34E-03
POCP = Formation potential of tropospheric ozone								
ADP-minerals & metals	**kg Sb eq.**	8,34E-04	7,54E-04	1,26E-06	1,35E-08	5,07E-05	2,77E-05	-2,39E-04
ADP-fossil	**MJ**	1,68E+02	6,40E+01	5,55E+00	4,31E-02	9,52E+01	3,44E+00	-1,27E+01
ADP-minerals & metals = Abiotic depletion potential for non-fossil resources ADP-fossil = Abiotic depletion for fossil resources potential								
WDP	**m^3 eq. depr.**	4,02E+00	2,83E+00	2,25E-02	2,83E-04	1,07E+00	9,70E-02	-3,72E-01
WDP = Water Deprivation potential								

Common base of mandatory indicators

Inventory flows indicator – Resource use indicators

Indicator	Unit	Total (no benefits)	Manu-facturing	Distri-bution	Installation	Use	End of life
PERE	**MJ**	3,05E+01	8,72E+00	8,62E-02	1,67E-03	2,13E+01	3,74E-01
PERM	**MJ**	9,86E-01	9,86E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	**MJ**	3,15E+01	9,71E+00	8,62E-02	1,67E-03	2,13E+01	3,74E-01
PENRE	**MJ**	1,62E+02	5,79E+01	5,55E+00	4,31E-02	9,52E+01	3,44E+00
PENRM	**MJ**	6,11E+00	6,11E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	**MJ**	1,68E+02	6,40E+01	5,55E+00	4,31E-02	9,52E+01	3,44E+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 (no benefits)	Manu-facturing	Distri-bution	Installation	Use	End of life
SM	**kg**	3,39E-02	3,39E-02	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
NRSF	**MJ**	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	**m^3**	1,60E-01	7,92E-02	7,91E-04	1,64E-05	7,71E-02	3,15E-03

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 (no benefits)	Manu-facturing	Distri-bution	Installation	Use	End of life
Hazardous waste disposed	**kg**	9,04E-04	6,75E-04	3,53E-05	2,55E-07	1,67E-04	2,60E-05
Non- hazardous waste disposed	**kg**	2,09E+00	1,07E+00	2,71E-01	9,93E-03	3,83E-01	3,57E-01
Radioactive waste disposed	**kg**	8,00E-04	1,01E-04	1,80E-06	4,10E-08	6,87E-04	1,03E-05

Common base of mandatory indicators

Inventory flows indicator – Output flow indicators

Indicator	Unit	Total (no benefits)	Manu-facturing	Distri-bution	Installation	Use	End of life
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	5,37E-01	2,48E-01	0,00E+00	3,44E-02	0,00E+00	2,55E-01
Materials for energy recovery	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy	MJ	1,47E-01	0,00E+00	0,00E+00	4,05E-02	0,00E+00	1,07E-01

Inventory flow indicator – other indicators

Indicator	Unit	Total (no benefits)	Manu-facturing	Distri-bution	Installation	Use	End of life
Biogenic carbon content of the product	kg of C	8,21E-04	8,21E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Biogenic carbon content of the associated packaging	kg of C	3,00E-02	3,00E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00

Optional indicators

Environmental indicators

Indicator	Unit	Total (no benefits)	Manu-facturing	Distri-bution	Installation	Use	End of life
Total use of primary energy during the life cycle	MJ	2,00E+02	7,37E+01	5,64E+00	4,47E-02	1,17E+02	3,81E+00
Emissions of fine particles	incidence of diseases	5,25E-07	3,81E-07	3,19E-08	3,32E-10	8,80E-08	2,34E-08
Ionizing radiation, human health	kBq U235 eq.	3,13E+00	3,95E-01	7,43E-03	1,64E-04	2,68E+00	4,02E-02
Ecotoxicity (fresh water)	CTUe	1,08E+02	8,61E+01	2,74E+00	4,46E-02	1,60E+01	3,58E+00
Human toxicity, car-cinogenic effects	CTUh	2,83E-08	1,99E-08	1,78E-10	4,57E-12	1,97E-09	6,24E-09
Human toxicity, non-carcinogenic effects	incidence of diseases	8,33E-07	7,02E-07	3,91E-09	4,92E-11	7,84E-08	4,87E-08
Impact related to land use/soil quality		6,31E+01	3,90E+01	3,31E+00	2,30E-02	1,86E+01	2,24E+00

Other indicators

Indicator	Unit	Total (no benefits)	Manu-facturing	Distri-bution	Installation	Use	End of life
No Other indicators used							

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 a linear correlation with respect to weight for the production, distribution, and end-of-life phase and with respect to average power loss for the use phase. Each environmental indicator value shall be calculated using the following formulas:

For the manufacturing and use stages: y = ax + b

Impact	MANUFACTURING		DISTRIBUTION		INSTALL		USE		END OF LIFE	
	a1	b1	a2	b2	a3	b3	a4	b4	a5	b5
Climate change	1,16E-02	2,45E-01	7,83E-04	3,89E-02	0,00E+00	4,00E-02	1,93E+01	2,61E-03	7,55E-04	2,56E-04
Climate change - Fossil	1,14E-02	1,93E-01	7,82E-04	3,89E-02	0,00E+00	4,22E-03	1,86E+01	2,52E-03	6,22E-04	2,11E-04
Climate change - Biogenic	1,70E-04	5,13E-02	7,12E-07	3,54E-05	0,00E+00	3,57E-02	6,48E-01	8,79E-05	1,33E-04	4,50E-05
Climate change - Land use and LU change	9,44E-06	1,24E-03	3,82E-07	1,90E-05	0,00E+00	1,61E-06	4,64E-02	6,29E-06	5,45E-07	1,85E-07
Ozone depletion	4,61E-08	2,27E-08	1,71E-11	8,52E-10	0,00E+00	7,17E-11	3,54E-07	4,81E-11	9,19E-12	3,12E-12
Acidification	1,56E-04	2,38E-03	3,24E-06	1,61E-04	0,00E+00	1,85E-05	1,07E-01	1,45E-05	6,65E-06	2,26E-06
Eutrophication, freshwater	1,12E-05	1,22E-04	5,51E-08	2,74E-06	0,00E+00	4,70E-07	1,76E-02	2,39E-06	3,94E-07	1,34E-07
Eutrophication, marine	1,62E-05	4,44E-04	1,23E-06	6,14E-05	0,00E+00	1,55E-05	1,72E-02	2,34E-06	1,58E-06	5,38E-07
Eutrophication, terrestrial	1,96E-04	4,31E-03	1,32E-05	6,56E-04	0,00E+00	7,49E-05	1,56E-01	2,12E-05	8,58E-06	2,91E-06
Photochemical ozone formation	5,03E-05	1,26E-03	4,74E-06	2,36E-04	0,00E+00	2,78E-05	5,01E-02	6,79E-06	2,89E-06	9,81E-07
Resource use, minerals and metals	1,64E-06	1,87E-05	2,53E-09	1,26E-07	0,00E+00	1,35E-08	2,25E-04	3,06E-08	6,17E-08	2,09E-08
Resource use, fossils	1,37E-01	2,72E+00	1,12E-02	5,55E-01	0,00E+00	4,31E-02	4,23E+02	5,73E-02	7,67E-03	2,60E-03
Water use (from AWARE)	6,08E-03	1,03E-01	4,53E-05	2,25E-03	0,00E+00	2,83E-04	4,74E+00	6,43E-04	2,16E-04	7,34E-05
Components for re-use	1,50E-01	6,30E+00	1,13E-02	5,64E-01	0,00E+00	4,47E-02	5,17E+02	7,02E-02	8,50E-03	2,88E-03
Materials for recycling	1,36E-02	2,62E+00	1,73E-04	8,61E-03	0,00E+00	1,67E-03	9,48E+01	1,29E-02	8,34E-04	2,83E-04
Materials for energy recovery	5,90E-05	9,59E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy	1,37E-02	3,58E+00	1,73E-04	8,61E-03	0,00E+00	1,67E-03	9,48E+01	1,29E-02	8,34E-04	2,83E-04
Particulate matter	1,23E-01	2,59E+00	1,12E-02	5,55E-01	0,00E+00	4,31E-02	4,23E+02	5,73E-02	7,67E-03	2,60E-03
Ionising radiation	1,33E-02	1,32E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRE	1,37E-01	2,72E+00	1,12E-02	5,55E-01	0,00E+00	4,31E-02	4,23E+02	5,73E-02	7,67E-03	2,60E-03
PENRM	7,71E-09	3,39E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERE	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERM	1,62E-04	6,64E-03	1,59E-06	7,91E-05	0,00E+00	1,64E-05	3,42E-01	4,64E-05	7,02E-06	2,38E-06
PERT	1,46E-06	2,28E-05	7,10E-08	3,53E-06	0,00E+00	2,55E-07	7,42E-04	1,01E-07	5,80E-08	1,97E-08
Total use of primary energy during the life cycle	2,27E-03	4,97E-02	5,45E-04	2,71E-02	0,00E+00	9,93E-03	1,70E+00	2,31E-04	7,97E-04	2,70E-04
Use of secondary material	2,15E-07	4,57E-06	3,62E-09	1,80E-07	0,00E+00	4,10E-08	3,05E-03	4,14E-07	2,30E-08	7,79E-09
Use of renewable secondary fuels	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non-renewable secondary fuels	4,34E-04	5,32E-02	0,00E+00	0,00E+00	0,00E+00	3,44E-02	0,00E+00	0,00E+00	5,70E-04	1,93E-04
Net use of fresh water	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Hazardous waste disposed	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,05E-02	0,00E+00	0,00E+00	2,38E-04	8,06E-05
Non-hazardous waste disposed	8,14E-10	1,62E-08	6,41E-11	3,19E-09	0,00E+00	3,32E-10	3,91E-07	5,30E-11	5,22E-11	1,77E-11
Radioactive waste disposed	8,42E-04	1,79E-02	1,49E-05	7,43E-04	0,00E+00	1,64E-04	1,19E+01	1,62E-03	8,97E-05	3,04E-05
Ecotoxicity, freshwater	1,87E-01	2,11E+00	5,50E-03	2,74E-01	0,00E+00	4,46E-02	7,10E+01	9,64E-03	7,98E-03	2,71E-03
Human toxicity, cancer	4,29E-11	7,14E-10	3,57E-13	1,78E-11	0,00E+00	4,57E-12	8,73E-09	1,18E-12	1,39E-11	4,72E-12
Human toxicity, non-cancer	1,51E-09	2,42E-08	7,86E-12	3,91E-10	0,00E+00	4,92E-11	3,48E-07	4,72E-11	1,09E-10	3,68E-11
Land use	6,00E-02	1,21E+01	6,64E-03	3,31E-01	0,00E+00	2,30E-02	8,24E+01	1,12E-02	5,00E-03	1,70E-03
Biogenic C content_product	1,75E-06	3,47E-05	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Biogenic C content_packaging	0,00E+00	3,00E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

PE = Total use of primary energy during the life cycle
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

Extrapolation Factors

Product ID	Product Type	Total Weight [g]	Average power loss [W]	Product ID	Product Type	Total Weight [g]	Average power loss [W]
2CSR246040R1064	DS203NC L C6 AC30	4,60E+02	1,69E-01	2CSR256140R1164	DS203NC C16 A30	4,48E+02	2,25E-01
2CSR246040R1084	DS203NC L C8 AC30	4,60E+02	9,50E-02	2CSR256140R1165	DS203NC B16 A30	4,48E+02	2,25E-01
2CSR246040R1104	DS203NC L C10 AC30	4,60E+02	1,26E-01	2CSR256140R1167	DS203NC K16 A30	4,48E+02	2,25E-01
2CSR246040R1134	DS203NC L C13 AC30	4,48E+02	1,62E-01	2CSR256140R1204	DS203NC C20 A30	4,48E+02	2,66E-01
2CSR246040R1164	DS203NC L C16 AC30	4,48E+02	2,25E-01	2CSR256140R1205	DS203NC B20 A30	4,48E+02	2,66E-01
2CSR246040R1204	DS203NC L C20 AC30	4,48E+02	2,66E-01	2CSR256140R1207	DS203NC K20 A30	4,48E+02	2,66E-01
2CSR246040R1254	DS203NC L C25 AC30	4,71E+02	2,32E-01	2CSR256140R1254	DS203NC C25 A30	4,71E+02	2,32E-01
2CSR246040R1324	DS203NC L C32 AC30	4,71E+02	3,40E-01	2CSR256140R1255	DS203NC B25 A30	4,71E+02	2,32E-01
2CSR246040R3064	DS203NC L C6 AC300	4,60E+02	1,69E-01	2CSR256140R1257	DS203NC K25 A30	4,71E+02	2,32E-01
2CSR246040R3084	DS203NC L C8 AC300	4,60E+02	9,50E-02	2CSR256140R1324	DS203NC C32 A30	4,71E+02	3,40E-01
2CSR246040R3104	DS203NC L C10 AC300	4,60E+02	1,26E-01	2CSR256140R1325	DS203NC B32 A30	4,71E+02	3,40E-01
2CSR246040R3134	DS203NC L C13 AC300	4,48E+02	1,62E-01	2CSR256140R1327	DS203NC K32 A30	4,71E+02	3,40E-01
2CSR246040R3164	DS203NC L C16 AC300	4,48E+02	2,25E-01	2CSR256140R2064	DS203NC C6 A100	4,60E+02	1,69E-01
2CSR246040R3204	DS203NC L C20 AC300	4,48E+02	2,66E-01	2CSR256140R2065	DS203NC B6 A100	4,60E+02	1,69E-01
2CSR246040R3254	DS203NC L C25 AC300	4,71E+02	2,32E-01	2CSR256140R2067	DS203NC K6 A100	4,60E+02	1,69E-01
2CSR246040R3324	DS203NC L C32 AC300	4,71E+02	3,40E-01	2CSR256140R2084	DS203NC C8 A100	4,60E+02	9,50E-02
2CSR246140R1064	DS203NC L C6 A30	4,60E+02	1,69E-01	2CSR256140R2085	DS203NC B8 A100	4,60E+02	9,50E-02
2CSR246140R1084	DS203NC L C8 A30	4,60E+02	9,50E-02	2CSR256140R2087	DS203NC K8 A100	4,60E+02	9,50E-02
2CSR246140R1104	DS203NC L C10 A30	4,60E+02	1,26E-01	2CSR256140R2104	DS203NC C10 A100	4,60E+02	1,26E-01
2CSR246140R1134	DS203NC L C13 A30	4,48E+02	1,62E-01	2CSR256140R2105	DS203NC B10 A100	4,60E+02	1,26E-01
2CSR246140R1164	DS203NC L C16 A30	4,48E+02	2,25E-01	2CSR256140R2107	DS203NC K10 A100	4,60E+02	1,26E-01
2CSR246140R1204	DS203NC L C20 A30	4,48E+02	2,66E-01	2CSR256140R2134	DS203NC C13 A100	4,48E+02	1,62E-01
2CSR246140R1254	DS203NC L C25 A30	4,71E+02	2,32E-01	2CSR256140R2135	DS203NC B13 A100	4,48E+02	1,62E-01
2CSR246140R1324	DS203NC L C32 A30	4,71E+02	3,40E-01	2CSR256140R2137	DS203NC K13 A100	4,48E+02	1,62E-01
2CSR246140R3064	DS203NC L C6 A300	4,60E+02	1,69E-01	2CSR256140R2164	DS203NC C16 A100	4,48E+02	2,25E-01
2CSR246140R3084	DS203NC L C8 A300	4,60E+02	9,50E-02	2CSR256140R2165	DS203NC B16 A100	4,48E+02	2,25E-01
2CSR246140R3104	DS203NC L C10 A300	4,60E+02	1,26E-01	2CSR256140R2167	DS203NC K16 A100	4,48E+02	2,25E-01
2CSR246140R3134	DS203NC L C13 A300	4,48E+02	1,62E-01	2CSR256140R2204	DS203NC C20 A100	4,48E+02	2,66E-01
2CSR246140R3164	DS203NC L C16 A300	4,48E+02	2,25E-01	2CSR256140R2205	DS203NC B20 A100	4,48E+02	2,66E-01
2CSR246140R3204	DS203NC L C20 A300	4,48E+02	2,66E-01	2CSR256140R2207	DS203NC K20 A100	4,48E+02	2,66E-01
2CSR246140R3254	DS203NC L C25 A300	4,71E+02	2,32E-01	2CSR256140R2254	DS203NC C25 A100	4,71E+02	2,32E-01
2CSR246140R3324	DS203NC L C32 A300	4,71E+02	3,40E-01	2CSR256140R2255	DS203NC B25 A100	4,71E+02	2,32E-01
2CSR246440R1064	DS203NC L C6 APR30	4,60E+02	1,69E-01	2CSR256140R2257	DS203NC K25 A100	4,71E+02	2,32E-01
2CSR246440R1084	DS203NC L C8 APR30	4,60E+02	9,50E-02	2CSR256140R2324	DS203NC C32 A100	4,71E+02	3,40E-01
2CSR246440R1104	DS203NC L C10 APR30	4,60E+02	1,26E-01	2CSR256140R2325	DS203NC B32 A100	4,71E+02	3,40E-01
2CSR246440R1134	DS203NC L C13 APR30	4,48E+02	1,62E-01	2CSR256140R2327	DS203NC K32 A100	4,71E+02	3,40E-01
2CSR246440R1164	DS203NC L C16 APR30	4,48E+02	2,25E-01	2CSR256140R3064	DS203NC C6 A300	4,60E+02	1,69E-01
2CSR246440R1204	DS203NC L C20 APR30	4,48E+02	2,66E-01	2CSR256140R3065	DS203NC B6 A300	4,60E+02	1,69E-01
2CSR246440R1254	DS203NC L C25 APR30	4,71E+02	2,32E-01	2CSR256140R3084	DS203NC C8 A300	4,60E+02	9,50E-02
2CSR246440R1324	DS203NC L C32 APR30	4,71E+02	3,40E-01	2CSR256140R3085	DS203NC B8 A300	4,60E+02	9,50E-02
2CSR256040R1064	DS203NC C6 AC30	4,60E+02	1,69E-01	2CSR256140R3104	DS203NC C10 A300	4,60E+02	1,26E-01
2CSR256040R1065	DS203NC B6 AC30	4,60E+02	1,69E-01	2CSR256140R3105	DS203NC B10 A300	4,60E+02	1,26E-01
2CSR256040R1084	DS203NC C8 AC30	4,60E+02	9,50E-02	2CSR256140R3134	DS203NC C13 A300	4,48E+02	1,62E-01
2CSR256040R1085	DS203NC B8 AC30	4,60E+02	9,50E-02	2CSR256140R3135	DS203NC B13 A300	4,48E+02	1,62E-01
2CSR256040R1104	DS203NC C10 AC30	4,60E+02	1,26E-01	2CSR256140R3164	DS203NC C16 A300	4,48E+02	2,25E-01
2CSR256040R1105	DS203NC B10 AC30	4,60E+02	1,26E-01	2CSR256140R3165	DS203NC B16 A300	4,48E+02	2,25E-01
2CSR256040R1134	DS203NC C13 AC30	4,48E+02	1,62E-01	2CSR256140R3204	DS203NC C20 A300	4,48E+02	2,66E-01
2CSR256040R1135	DS203NC B13 AC30	4,48E+02	1,62E-01	2CSR256140R3205	DS203NC B20 A300	4,48E+02	2,66E-01
2CSR256040R1164	DS203NC C16 AC30	4,48E+02	2,25E-01	2CSR256140R3254	DS203NC C25 A300	4,71E+02	2,32E-01
2CSR256040R1165	DS203NC B16 AC30	4,48E+02	2,25E-01	2CSR256140R3255	DS203NC B25 A300	4,71E+02	2,32E-01

Extrapolation Factors

Product ID	Product Type	Total Weight [g]	Average power loss [W]	Product ID	Product Type	Total Weight [g]	Average power loss [W]*
2CSR256040R1204	DS203NC C20 AC30	4,48E+02	2,66E-01	2CSR256140R3324	DS203NC C32 A300	4,71E+02	3,40E-01
2CSR256040R1205	DS203NC B20 AC30	4,48E+02	2,66E-01	2CSR256140R3325	DS203NC B32 A300	4,71E+02	3,40E-01
2CSR256040R1254	DS203NC C25 AC30	4,71E+02	2,32E-01	2CSR256147R1064	DS203NC C6 A30 230V	4,60E+02	1,69E-01
2CSR256040R1255	DS203NC B25 AC30	4,71E+02	2,32E-01	2CSR256147R1065	DS203NC B6 A30 230V	4,60E+02	1,69E-01
2CSR256040R1324	DS203NC C32 AC30	4,71E+02	3,40E-01	2CSR256147R1084	DS203NC C8 A30 230V	4,60E+02	9,50E-02
2CSR256040R1325	DS203NC B32 AC30	4,71E+02	3,40E-01	2CSR256147R1085	DS203NC B8 A30 230V	4,60E+02	9,50E-02
2CSR256040R2064	DS203NC C6 AC100	4,60E+02	1,69E-01	2CSR256147R1104	DS203NC C10 A30 230V	4,60E+02	1,26E-01
2CSR256040R2065	DS203NC B6 AC100	4,60E+02	1,69E-01	2CSR256147R1105	DS203NC B10 A30 230V	4,60E+02	1,26E-01
2CSR256040R2084	DS203NC C8 AC100	4,60E+02	9,50E-02	2CSR256147R1134	DS203NC C13 A30 230V	4,48E+02	1,62E-01
2CSR256040R2085	DS203NC B8 AC100	4,60E+02	9,50E-02	2CSR256147R1135	DS203NC B13 A30 230V	4,48E+02	1,62E-01
2CSR256040R2104	DS203NC C10 AC100	4,60E+02	1,26E-01	2CSR256147R1164	DS203NC C16 A30 230V	4,48E+02	2,25E-01
2CSR256040R2105	DS203NC B10 AC100	4,60E+02	1,26E-01	2CSR256147R1165	DS203NC B16 A30 230V	4,48E+02	2,25E-01
2CSR256040R2134	DS203NC C13 AC100	4,48E+02	1,62E-01	2CSR256147R1204	DS203NC C20 A30 230V	4,48E+02	2,66E-01
2CSR256040R2135	DS203NC B13 AC100	4,48E+02	1,62E-01	2CSR256147R1205	DS203NC B20 A30 230V	4,48E+02	2,66E-01
2CSR256040R2164	DS203NC C16 AC100	4,48E+02	2,25E-01	2CSR256147R1254	DS203NC C25 A30 230V	4,71E+02	2,32E-01
2CSR256040R2165	DS203NC B16 AC100	4,48E+02	2,25E-01	2CSR256147R1255	DS203NC B25 A30 230V	4,71E+02	2,32E-01
2CSR256040R2204	DS203NC C20 AC100	4,48E+02	2,66E-01	2CSR256147R1324	DS203NC C32 A30 230V	4,71E+02	3,40E-01
2CSR256040R2205	DS203NC B20 AC100	4,48E+02	2,66E-01	2CSR256147R1325	DS203NC B32 A30 230V	4,71E+02	3,40E-01
2CSR256040R2254	DS203NC C25 AC100	4,71E+02	2,32E-01	2CSR256240R2164	DS203NC C16 A S100	4,48E+02	2,25E-01
2CSR256040R2255	DS203NC B25 AC100	4,71E+02	2,32E-01	2CSR256240R2204	DS203NC C20 A S100	4,48E+02	2,66E-01
2CSR256040R2324	DS203NC C32 AC100	4,71E+02	3,40E-01	2CSR256240R2254	DS203NC C25 A S100	4,71E+02	2,32E-01
2CSR256040R2325	DS203NC B32 AC100	4,71E+02	3,40E-01	2CSR256240R2324	DS203NC C32 A S100	4,71E+02	3,40E-01
2CSR256040R3064	DS203NC C6 AC300	4,60E+02	1,69E-01	2CSR256240R3164	DS203NC C16 A S300	4,48E+02	2,25E-01
2CSR256040R3065	DS203NC B6 AC300	4,60E+02	1,69E-01	2CSR256240R3204	DS203NC C20 A S300	4,48E+02	2,66E-01
2CSR256040R3084	DS203NC C8 AC300	4,60E+02	9,50E-02	2CSR256240R3254	DS203NC C25 A S300	4,71E+02	2,32E-01
2CSR256040R3085	DS203NC B8 AC300	4,60E+02	9,50E-02	2CSR256240R3324	DS203NC C32 A S300	4,71E+02	3,40E-01
2CSR256040R3104	DS203NC C10 AC300	4,60E+02	1,26E-01	2CSR256440R1064	DS203NC C6 APR30	4,60E+02	1,69E-01
2CSR256040R3105	DS203NC B10 AC300	4,60E+02	1,26E-01	2CSR256440R1084	DS203NC C8 APR30	4,60E+02	9,50E-02
2CSR256040R3134	DS203NC C13 AC300	4,48E+02	1,62E-01	2CSR256440R1104	DS203NC C10 APR30	4,60E+02	1,26E-01
2CSR256040R3135	DS203NC B13 AC300	4,48E+02	1,62E-01	2CSR256440R1134	DS203NC C13 APR30	4,48E+02	1,62E-01
2CSR256040R3164	DS203NC C16 AC300	4,48E+02	2,25E-01	2CSR256440R1164	DS203NC C16 APR30	4,48E+02	2,25E-01
2CSR256040R3165	DS203NC B16 AC300	4,48E+02	2,25E-01	2CSR256440R1204	DS203NC C20 APR30	4,48E+02	2,66E-01
2CSR256040R3204	DS203NC C20 AC300	4,48E+02	2,66E-01	2CSR256440R1254	DS203NC C25 APR30	4,71E+02	2,32E-01
2CSR256040R3205	DS203NC B20 AC300	4,48E+02	2,66E-01	2CSR256440R1324	DS203NC C32 APR30	4,71E+02	3,40E-01
2CSR256040R3254	DS203NC C25 AC300	4,71E+02	2,32E-01	2CSR256440R2064	DS203NC C6 APR100	4,60E+02	1,69E-01
2CSR256040R3255	DS203NC B25 AC300	4,71E+02	2,32E-01	2CSR256440R2084	DS203NC C8 APR100	4,60E+02	9,50E-02
2CSR256040R3324	DS203NC C32 AC300	4,71E+02	3,40E-01	2CSR256440R2104	DS203NC C10 APR100	4,60E+02	1,26E-01
2CSR256040R3325	DS203NC B32 AC300	4,71E+02	3,40E-01	2CSR256440R2134	DS203NC C13 APR100	4,48E+02	1,62E-01
2CSR256140R1064	DS203NC C6 A30	4,60E+02	1,69E-01	2CSR256440R2164	DS203NC C16 APR100	4,48E+02	2,25E-01
2CSR256140R1065	DS203NC B6 A30	4,60E+02	1,69E-01	2CSR256440R2204	DS203NC C20 APR100	4,48E+02	2,66E-01
2CSR256140R1067	DS203NC K6 A30	4,60E+02	1,69E-01	2CSR256440R2254	DS203NC C25 APR100	4,71E+02	2,32E-01
2CSR256140R1084	DS203NC C8 A30	4,60E+02	9,50E-02	2CSR256440R2324	DS203NC C32 APR100	4,71E+02	3,40E-01
2CSR256140R1085	DS203NC B8 A30	4,60E+02	9,50E-02	2CSR256440R3064	DS203NC C6 APR300	4,60E+02	1,69E-01
2CSR256140R1087	DS203NC K8 A30	4,60E+02	9,50E-02	2CSR256440R3084	DS203NC C8 APR300	4,60E+02	9,50E-02
2CSR256140R1104	DS203NC C10 A30	4,60E+02	1,26E-01	2CSR256440R3104	DS203NC C10 APR300	4,60E+02	1,26E-01
2CSR256140R1105	DS203NC B10 A30	4,60E+02	1,26E-01	2CSR256440R3134	DS203NC C13 APR300	4,48E+02	1,62E-01
2CSR256140R1107	DS203NC K10 A30	4,60E+02	1,26E-01	2CSR256440R3164	DS203NC C16 APR300	4,48E+02	2,25E-01
2CSR256140R1134	DS203NC C13 A30	4,48E+02	1,62E-01	2CSR256440R3204	DS203NC C20 APR300	4,48E+02	2,66E-01
2CSR256140R1135	DS203NC B13 A30	4,48E+02	1,62E-01	2CSR256440R3254	DS203NC C25 APR300	4,71E+02	2,32E-01
2CSR256140R1137	DS203NC K13 A30	4,48E+02	1,62E-01	2CSR256440R3324	DS203NC C32 APR300	4,71E+02	3,40E-01

* Power Loss @15%In

Environmental Impact Indicator Glossary

Impact indicators

Indicator	Description	Distri-bution
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	Distri-bution
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)

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Registration number: **ABBG-00605-V01.01-EN**	Drafting Rules: ***PCR-ed4-EN-2021 09 06*** ***Supplemented by:*** ***PSR-0005-ed3-EN-2023 06 06***
Verifier accreditation number: ***VH50***	Information and reference documents: **www.pep-ecopassport.org**
Date of issue: ***06/2024***	Validity period: **5 years**
Independent verification of the declaration and data, in compliance with ISO 14025: 2006	
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 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"	